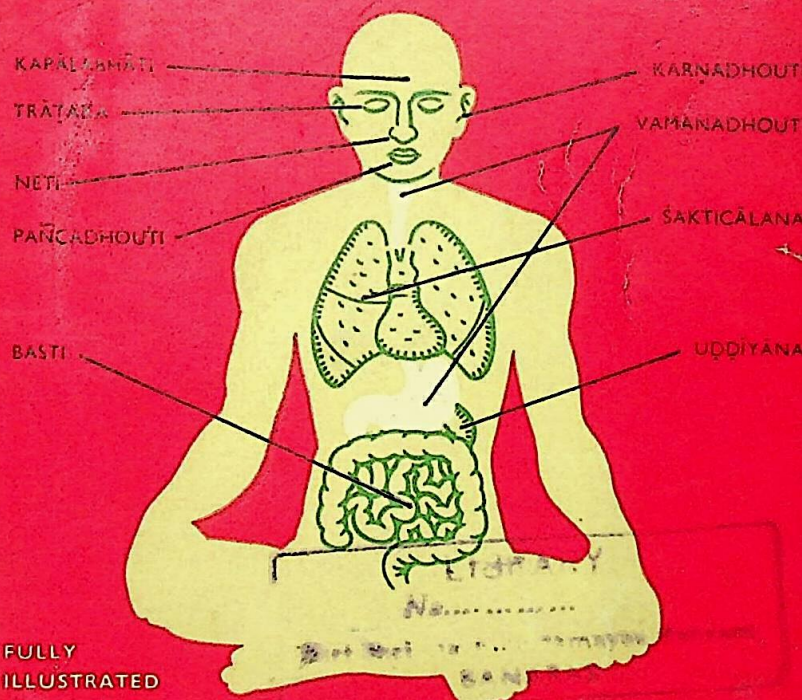
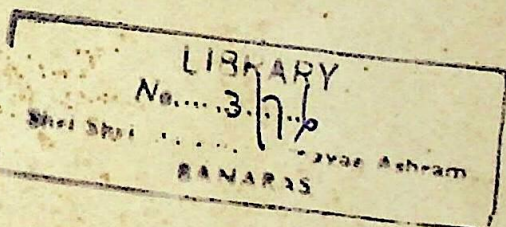


YOGA STUDIES
by SHRI YOGENDRA

3/26
YOGA
Hygiene Simplified



Dr. S. P. Mukherjee
B.H.U.





The Crypt of Civilization

1940 A.D. to 8113 A.D.

FOR the world of the future, the official publications of The Yoga Institute, including this work, have been microfilmed and sealed in the archives of the Crypt of Civilization—"the greatest historical project in the world today"—which is to remain inviolate until the year 8113 A.D.

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1. *Yoga Physical Education, Vol. I*
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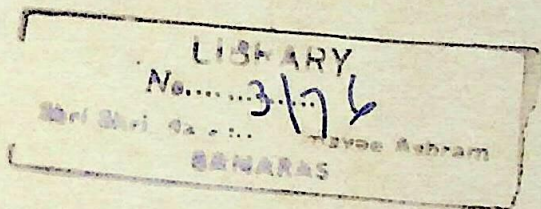
Yoga Studies

3/76

Y O G A
HYGIENE SIMPLIFIED



TO
YOGĪŚVARA PARAMAHAMSA MĀDHAVADĀSAJI





RADIOGRAPH SHOWING THE NASAL CLEANSING BY THE
PROBE DURING LOWER NETI

Y O G A HYGIENE SIMPLIFIED

BY
SHRI YOGENDRA

FOUNDER-PRESIDENT OF THE YOGA INSTITUTES IN
INDIA AND AMERICA, EDITOR OF THE SCIENTIFIC
YOGA SERIES, YOGA STUDIES AND ILLUSTRATED
JOURNAL YOGA, ETC., ETC.

WITH A PREFACE

BY
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U.S.A. AND THE SCIENTIFIC CORROBORATOR TO
THE YOGA INSTITUTE.



THE YOGA INSTITUTE

SANTA CRUZ, BOMBAY, 25

1959



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PREFACE

I HAVE had the pleasure of going over the entire volume with the author and I can truthfully say that it has been a source of keen interest for me. We of the West pride ourselves upon the advances we have made but the men of the East may pride themselves upon the heritage of knowledge which they possess. Only a few hundred years ago we discovered the circulation of blood, while Yoga recorded it thousands of years ago.

It is, as I understand, the purpose of the author to give a comprehensive presentation of this ancient system of hygiene and physical prophylaxis, to give it in a scholarly, scientific, and also popular way, and to incorporate beside it the modern conceptions of personal hygiene. He has left no source untouched as far as it was humanly possible to explore. He is versed in Sanskrit and other ancient languages and is well able to do the task to which he has assigned himself.

Inasmuch as the work is a research into the past—about 3000 years—and also a résumé of the modern thought on the subject, it commends itself to those who are interested in this branch of knowledge. Altho I am a Western man and trained in the sciences of the West, I have found this volume

PREFACE

quite instructive and I look forward with anticipation to the coming of the succeeding volumes.

Among the points which especially held my interest are the following: (1) the emphasis on cleanliness *within* and without, (2) the urge towards poise and control of the body and mind, (3) the non-violent, non-fatiguing type of physical exercises and technique advocated, (4) the theories concerning the benefits of alternate breathing, (5) the use of the diaphragm, and (6) the exceptional care taken by the author to give complete references both to the ancient and the modern literature for all points upon which authority might be desired, and also (7) a consistent effort to avoid being dogmatic.

It is this careful method of presentation of this subject by the author, and the historical aspect of the material presented that has commended itself to me. As a surgeon and physician I cannot subscribe to some of the practices of these ancient investigators but my academic interest in their theories, beliefs, and methods is not lessened thereby. It is upon this basis that I feel that *this work fills a unique place in the literature on the history of personal hygiene.*

Since I am personally acquainted with the author, and am convinced that he is the man pre-eminently fitted to do this kind of research work (not only because of his extensive intimate

PREFACE

association with the ancient writings but also because of his study in England and the Continent and his four years' work in America in 1919-1922 when he was associated with many of the members of the medical profession), I do not hesitate to commend this work to those who are interested in this type of research.

1930

JOHN W. FOX

INTRODUCTION

SOME forty years ago, during his lecture tour in America, for the first time, the author referred to the *science* of Yoga. It is gratifying, therefore, to note that during the interval—thanks to the pioneer activities of The Yoga Institute—the claims of Yoga as a positive science are being gradually recognized.

For example, during the short period of its publication, this work—as anticipated by its author—has aroused the interest both of the serious students of Yoga as also of the modern scientists in all parts of the world. Consequently, corroborative scientific evaluation as outlined by The Yoga Institute is being continually received by the author from many interested research students.

Furthermore, it is increasingly evident that the modern medical sciences are just beginning to acknowledge—howsoever grudgingly—the merits of certain aspects of yoga hygiene, preventive medicine and therapeutics. In effect, the value of yoga breathing evolved by this Institute in 1918 is now being widely recommended as the best cure for asthma by the Asthma Research Council of Great Britain as late as 1935. The emphasis, after careful clinical experiments, on the merits of yoga treatment

INTRODUCTION

for chronic constipation has been successfully demonstrated at the Berlin University Charity Clinic in 1934. The admission that the scientific claims of yoga methods are well-founded was made in 1938 after personal and critical investigations at the Institute by the Médecin-Général deputed by the French Government. And while the scientists of UNESCO deputed by the Harvard University in 1953 were more than satisfied with their psychosomatic experiments at this Institute on some of the yoga practices conducive to creative altruism, the various medical delegations from the USSR visiting the Institute in 1955-56 were left in no doubt about the great scientific potentialities of applied Yoga (*kriyāyoga*). Besides these, there are innumerable acknowledgements from individual members of the professions all the world over.

The yoga hygieology—the physical aspect of *kriyāyoga*, however, deserves special attention and admiration for two distinct reasons, viz., (i) its antiquity in the cultural history of man which can hardly be doubted—representing the earliest attempts at personal prophylaxis—thus securing for it the topmost place in the history of hygiene, and preventive and social medicine; and (ii) its exceptionally wholesome and scientific perspective of the autogenous technique surpassing in certain details even our present knowledge and investigations, e.g., the processes of internal purification, of autotherapy, and of control of bionergy and

INTRODUCTION

allied matters. The object of this course of conduct is to guide natural living through rational measures promoting good health and longevity—such measures having been safeguarded by centuries of investigations and personal experimentations.

Unfortunately, prejudice has preceded the truth about scientific Yoga and, consequently, the practical yogin has been grossly misrepresented by a large number of ill-informed, misguided and irresponsible authors like Barnett, Macnicol, Basu, Rowlinson, Huxley, Abbè Dubois and a host of others as a wild and nauseating human being. Their mischievous statements only go to prove the extent of their ignorance as is evident from the contents of this work. In fact, there is really, to be sure, no man in India or, for that matter, even outside who follows so religiously the art and science of hygiene—both physical and mental—as does the scientific yogin.

There are numerous elaborate treatises on personal hygiene by modern authorities, but there is not even one that presents the yoga way to right living upon a physiologic basis—a basis which embraces a very large field of art and science of health hitherto unexplored. The purpose in introducing the yoga *kriyās*, as a practical code of physiologic (*ghaṭasya*) living is (i) to encourage such scientific investigations and criticisms as this subject may deserve and (ii) to have such salient

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features of the yoga hygiene accepted for universal practice as are compatible with modern living.

The anatomical and physiological descriptions of the various organs of the body—with their illustrations—have been purposely avoided as these may be properly studied through authoritative texts. The importance of preserving these organs in their healthy state and of maintaining the natural harmony between the inter-related functions of the various systems of the body has also been taken for granted—on the strength of its being an acknowledged fact—and, thus, the yoga practices and suggestions have been offered with this definite understanding. Only those issues which need to be emphasized clearly or pointed out specifically from the yoga viewpoint have been made the subject of frequent discussions and scientific corroborations.

Similarly, most textual references available in the Yoga Upaniṣads and Haṭhayoga treatises have been intentionally omitted to avoid undue emphasis and repetition. The few selected references from the ancient Āyurveda texts are an index to the existence of a contemporary knowledge of certain aspects of hygiene in ancient India with their many common points of agreement. The Sanskrit manuscripts which have been referred to are in the original either at the Bohar or the Ṭillāh maṭhas of the yogins from which casual notes have been jotted down by the author during his visit to these yoga monasteries in 1926.

INTRODUCTION

The medical reports and personal testimonials included in this work are of those patients who were treated by the author in his Yoga Institutes both in India—Bombay, 1918-19 in co-operation with Dr. E. S. Ghasawalla—and in America—New York, 1919-22 under the medical supervision of Dr. C. W. Hack of the Life Extension Institute and in consultation with Dr. Geo. S. Amsden of the Bloomingdale Hospital of White Plains, N. Y. The later reports are of cases treated at the headquarters of the Institute.

With regard to the spurious elements in Yoga, it needs to be pointed out that the reprehensible method of either receiving or imparting Yoga through unauthorized sources devoid of the essential and direct relationship of that unbroken tradition—from the teacher to the disciple—which alone is the guarantee of genuine Yoga, has always resulted in confusion of technique and deception in results. What must be emphasized is that, in the scientific or practical study of Yoga, such pitfalls have to be scrupulously avoided. Let it, therefore, be revealed that the practices recommended in this volume were acquired at firsthand by the author from the distinguished yogin, His Holiness Paramahansa Mādhavadāsajī, who enjoyed the normal span of 123 years of the blissfully healthy life of the yogin. It was at the Narmadā—the favourite *sanctum sanctorum* of the yogins—that the author lived with and received his yoga training exclusively and personally from His Holiness at Mālsara (1916-18).

INTRODUCTION

Before his *mahāsamādhi* (trancè absolute), Yogīśvara Paramahansa Mādhavadāsajī, having imparted all the traditional secrets, finally *blessed and entrusted the author in writing* with the Herculean task of practical Yoga Renaissance.

The *yoga kriyās* recommended have been revised, in the light of the author's own experiences and those of his students and patients and critically corroborated with the original Sanskrit texts. They have been further harmonized and compared with the western sciences through laboratory and clinical data recorded at the Institute for nearly four decades, and, after careful scrutiny, are here offered to the layman with a view to serving him as a daily course of personal hygiene.

The author is much indebted to his esteemed friend Dr. John W. Fox of the White Memorial Hospital (Los Angeles, Calif.) of America—for some years, Surgeon-in-Charge of the American Brethren Mission Hospital in India—for his certain valuable suggestions while perusing the MS. with the author and for expressing his keen interest and wholehearted sympathy.

Stripped of its superfluous technicalities, this secret gospel of health as taught by the yogins thousands of years ago—the various yoga practices, rules, regulations, observances and restraints upon subjects of such general interest as the care and control of the body, the purification and health of

INTRODUCTION

the internal organs, the elimination of toxins, physical education, etc.—contributes most certainly a large amount of valuable material to modern living which may prove to be one of the greatest heritage to the world of the future. The yoga kriyās impart just that knowledge which embraces the extension of human life not only as to length but also as to breadth and depth.

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MERE theoretical knowledge of Yoga does not justify anyone in imparting the same to others for what is required of such a teacher is his intimate contact with and proficiency in the traditional technique handed down by the teachers to the disciples. The general practice of supplementing pictures of others than the original author, sketches and figure drawings, etc.—especially as a guide to the scientific students of Yoga—is reprehensible and leaves much room for doubt regarding their authenticity and value for subjective criticism.

In conformity with this tradition, all the illustrations of the yoga methods appearing in this text of The Yoga Institute are reproduced from the author's own photos to confirm their technical validity both for objective and subjective study and criticism.

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तस्मात्सर्वात्मना कार्य्यं
रक्षा योगविदा सदा ।
धर्मार्थकाममोक्षाणां
शरीरं साधनं यतः ॥

SINCE body is *the* means to duty, wealth, pleasure and salvation, it should always be protected with all one's heart by the student of Yoga.

Yogacintāmaṇi, II, 97

CHAPTER I

IDEALS OF YOGA HYGIENE

How can one, who does not know (the care of and the varied physiologic inter-relations within) one's own body, hope to achieve success in Yoga ?¹

Gorakṣasāhita, I, 14

STRANGE as it may seem, the one subject which every one admits should be taught first and taught thoroughly—namely, *how to keep healthy*—has remained largely neglected. Many of us know when Napoleon lived or how far Venus is from us, but very few of us have, in fact, received even the most rudimentary knowledge of the proper living upon a physiologic basis. We are generally stuffed with such knowledge as need not be taught at all, at the sacrifice of such knowledge which needs to be learnt first by every one of us. To use a Baconian phrase, “we must determine the relative value of knowledge,” and, as common sense would suggest, should give precedence to the useful, real and effective over the non-useful, conventional and ornamental.

Further, it hardly needs to be pointed out that the very care and knowledge of the body which forms the basis of and on which depends all the

¹ *Svadeham ye na jñānti katham siddhyanti yogināḥ*

IDEALS OF YOGA HYGIENE

activities of a being should be considered a subject of vital personal importance and any knowledge leading to its well-being should be treated as essential and should, therefore, be imparted first. As such, the gift of knowledge leading to good health came to be regarded by the ancient medical authorities in India as an act of charity *par excellence*.² It was also widely recognized that for the health of the body, mind and soul, there is no science greater than Yoga³ and further that its propagation is the highest form of service one could render to humanity.⁴

In contrast, we have the sorry spectacle of feeble attempts recently made by certain educational authorities to introduce the study of hygiene in the syllabus of schools and colleges. Unfortunately, as an optional subject, it lacks due importance and attention; and, what is worse, in absence of means to cultivate its practice, the mere teaching of theories fails. Moreover, the over-emphasis on the mosquitoes, flies, rats and bacteria as carriers of diseases instead of on good health as the sole natural immunity against them actually deflects the right health perspective from the practical and positive virtues of good health to the less important and panicky notions about the various agents of disease. In consequence, the study of personal hygiene still remains neglected for all

2 Cf. *Carakasamhitā*, p. 4, Lahore Edn. 1944

3 *Yoga śāstram param matam* |

4 Cf. *Yogarhasya*, IV, 20 ; *Śivasamhitā*, I, 17.

HYGIENE : A RELIGIOUS OBSERVANCE

practical purposes, and the best art and science of health yet awaits full recognition and strict application. However, it is in the ancient yoga traditions alone—especially, Haṭhayoga—that one finds this sane and scientific perspective and its enforcement ideally established,⁵ as bounden duty.

HYGIENE : A RELIGIOUS OBSERVANCE

The practical yogin is by faith a spiritual being ; but this ideal does not prevent him from giving due attention to such material aspects of his life as the care of his body. On the contrary, his ambition is "*to achieve the unachieved*" not only in the physical plane—in the *Rgveda* sense⁶—but also in the realm of mental, moral and spiritual world as well. Practical Yoga (*kriyāyoga*) thus aims at a perfectly harmonized and well-balanced course of physical, mental, moral and spiritual culture.

Every student of scientific Yoga, right in the beginning, is made to realize most thoroughly and definitely that the physical well-being of an individual is the *only* positive means of attaining whatever is desired.⁷ His first duty therefore consists in maintaining perfect health through the religious observance of a prescribed form of *scientific living* what, in the modern term, we call *hygienic*.

5 Cf. *Haṭhayogapradīpikā*, II, 65f.

6 Cf. Sāyaṇa in his comment on *Rgveda*, VII, 54, iii.

7 *Dharmārthakāmaṁokṣāṇāmārogyam mūlamuttamam* |

IDEALS OF YOGA HYGIENE

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6 Cf. Śāyaṇa in his comment on *Rgveda*, VII, 54, iii.

7 *Dharmārthakāmaṁokṣāpāmārogyam mūlamuttamam* |

It is indeed remarkable that, during a particular stage of human history when nothing absolutely was known of systematic personal hygiene, the practical yogins should have succeeded in formulating a code of scientific living upon a strictly biologic basis. This was over three thousand years ago ; and what is vastly significant is that this yoga knowledge of maintaining good health, when analysed in the light of our most modern developments in science, does surprise us with its wholesomeness, rationalism and scientific precision. It may even be stated that the yoga personal hygiene, in many important principles and in theory, surpasses even our present knowledge of hygiene—e.g., the emphasis on the physio-psychological reaction of internal purification and elimination of poisons as also on the very processes employed in achieving the same—as will be evident from a comparative study of this all-important subject. Likewise, the affects have been found to be far-reaching, and the technique comprehensive in the case of scientific Yoga than is evident or practical in the mere health suggestions found in modern education of hygiene. Thus, for example, the elimination of poisons (*malasuddhi*) is seldom, if ever, so scientifically and naturally achieved as is possible through direct auto-processes advocated by the yoga hygiene. Scrupulous cleanliness (*śauca*)—not merely externally but more essentially internally—is a strict observance⁸ with the yogin,

8 Cf. *Yogasūtra*, II, 32 and 40 ; *Gheraṇḍasāhita*, I, 8 ; also compare *Yogayājñavalkyam*, II, 68.

CULTURAL AFFECTS OF YOGA HEALTH IDEALS

and every possible care is exercised to see that every part of the body receives proper attention daily and every organ is kept in its perfectly healthy state. The frontispiece illustrates how the health of the nasal passages is maintained by direct methods of cleansing, probing and friction through *neti*.

Hygienic life, is in fact, a prerequisite for the higher achievements in Yoga—and this for the simple reason that even the slightest indisposition of the body obstructs the upward rhythm and thereby disqualifies the student from further progress in his yoga endeavours⁹. The positive emphasis that so long as the immaculate health, especially of the nervous system through proper elimination of toxins, is not ensured how can there be the realization of inner harmony and therefore of Yoga¹⁰ is biologically most significant.

CULTURAL AFFECTS OF YOGA HEALTH IDEALS

The really important feature of the yoga hygiene is its overall cultural affects since the health ideals preached by the ancient yoga masters do not stop at the mere avoidance of invalidism but aim at exuberant and exultant health both of the body and the mind. The object, most certainly, is to see not how much strain our strength can stand but how really great we can make that strength.¹¹

9 Cf. *Yogasūtra*, I, 30f. with *Vyāsaśāhāya*; *Yogaśāritika*, p. 82, Calcutta Edn.

10 Cf. *Haṭhayogapradīpikā*, II, 4.

11 Although Yoga forbids the display of supernatural trickery and acrobaticism, it is nevertheless true that with the aid of certain

No man is, however, so conscious and careful of his good health as is the scientific yogin constantly in harmony with the subtlest physiologic laws and who serves as an ideal of perfect, positive and sedate good health sustained through anti-toxic purificatory processes or *dehasuddhi*.¹² But, the critical students of Yoga are earnestly cautioned not to confuse the identity of the genuine yogins with the fake as is likely to happen by their observation of the life of those who deceitfully pose or pass as yogins. The truth is that the real type of a scientific yogin is hardly to be seen in public even in India—for he never prefers publicity to his unusually quiet and contented life in a secluded dwelling—and that, therefore, he is less likely to be seen in any other country. All claims to the contrary require

secret yoga technique leading to internal controls many pseudo-yogins even to this day continue to exhibit various feats of strength, endurance and immunity. These include the placing of over a ton of weight on the chest, suspended animation, immunity from heat and cold, escape from natural causation and mental feats of multiplex memory and similar demonstrations. At most, such proofs imply the possibility and existence of many biologic potencies which the yoga methods are capable of exploiting but which are positively condemned by Yoga.

Equally unauthorized, vulgar and revolting are the various modes of exhibitionism encouraged and indulged in by the modern pseudo-yoga gymnasts (*sic*) both in India and abroad. It is because their cheap understanding and commercial exploitation of yogalike technique has remained unsublimated. In effect, however, by such plebeianism they drag Yoga from the sublime to the ridiculous. It is therefore quite natural that the indiscriminating fail to comprehend the true significance of Yoga.

¹² Cf. *Gorakṣapaddhati*, II, 8.

CULTURAL AFFECTS OF YOGA HEALTH IDEALS

careful scrutiny. Pointed references, consequently, had to be made even as early as the period of the Great Epic, the *Mahābhārata* (B.C. 300), to dissociate the real yogin particularly from those who passed under the same name.¹³

In spite of its antiquated character and guarded pristine latency—followed secretly and zealously by a selected group of self-culturists from generation to generation—the import and influence of Yoga came to be recognized in India gradually but ultimately as the sole prerequisite and the ideal synthesis of physical (*deha*), mental (*citta*) and spiritual (*ātma*) purification (*suddhi*) and super attainments (*siddhi*). In effect, this cultural compact proved so profound and overwhelming that every known system of Indian thought, including even the non-theistic schools of Jainism and Buddhism, incorporated a large number of archaic yoga processes in their tenets and formulated their own scheme of Yoga variously called—according to the school of thought to which the same became associated—Jaina Yoga, Buddhist Yoga, and Vedānta Yoga, more correctly Jñāna Yoga and so forth.¹⁴

13 "Thus, in contrast with those who practise the *scientific rules of the skilled yogin*, the one-leg up-arm ascetic belongs to the vulgar cult." See *The Great Epic of India*, by Prof. E. W. Hopkins, p. 182.

14 The cultural affects of the yoga health ideals may be measured from the fact that all systems of Indian Thought agree to Yoga being the only practical means of achieving absoluteness or realizing the Ultimate. Cf. *A History of Yoga*, by Shri Yogendra (ms.).

To put it broadly, the main object of personal hygiene as taught by Yoga is to set forth plainly the best means of developing and maintaining physical, mental, moral and spiritual good health. It thus contains besides self-culture many things you should know to keep you in good health—that good health which cannot be bought in bottles nor by money and still which stands as the first requisite of all happiness, success and achievements in life. It tells you in simple words what the advanced medical authorities in all countries now teach on subjects of such general interest as eating, drinking, breathing, bathing and the like. It offers you in a nutshell the how of right living in conformity with the rules of personal hygiene of the nose, the eye, the ear, the respiratory, digestive and the sexual organs and also the nervous system.

In Yoga, the mere extension of human life through personal hygiene is not only in itself an end to be desired for subliminal consciousness (*kaivalya*), but the most direct and effective means of lengthening human life are coincidentally those that make it more livable and always add to its power and capacity for achievement. The first and the most *sacred duty* of the yoga student, therefore, consists in taking care of his own body so as to affect the purity of his mind and soul.

Yoga maintains that it is just as easy to be well as to be not—only that a few conventional habits need to be changed, modified or corrected in the light of yoga experiences. That some of these

DISEASE : A PHYSICAL SIN

habits are radically wrong in many particulars and are thus responsible for an untold amount of harm, misery and vast number of premature deaths has recently been ascertained with the aid of medical researches. The yoga emphasis on preventive medicine is vitally related to good health and longevity. In fact, there is no exaggeration in saying that good health is Man's birthright—that it is just as natural to be well as to be born—and that from mere carelessness, ignorance or transgressions of hygienic laws arise most diseases and tendency to disease. Scientific Yoga, fortunately, lays great stress upon the purification of the body through all forms of anti-toxic measures. The care of the body is thus regarded as one of the most sacred duties of the yogin for he is taught that good health really is the primary requisite of all religious merits and endeavours.¹⁵

DISEASE : A PHYSICAL SIN

In the yoga sense, disease is a physical sin¹⁶ and the sick is considered to be just as much responsible for his ill health as he is for his ill actions. Thousands of years later, similar views are now being expressed by certain modern authorities on hygiene. For example, Pyle observes that "Persons who treat their bodies as they please and transgress rules of personal hygiene

15 *Śarīramādyam khalu dharmasādhanam* | Also compare *Carakasamhitā*, sūtrasthānam, I, 15.

16 Cf. *Gorakṣapaddhati*, II, 89.

IDEALS OF YOGA HYGIENE

of which they should have a definite understanding are physical sinners.”¹⁷

Because of such puritan exactitude, however, let it not be wrongly supposed that the rules of yoga hygiene are all-restrictive and operose. On the contrary, they are few, simple and extremely liberating and free us from a large number of restrictions we have consciously or unconsciously placed upon ourselves leaving no room for our own power to manifest, to be useful, or even to enjoy life. The yoga methods and principles elaborated in the succeeding chapters are absolutely rational, scientific and simple ; and what may be feared is that their very simplicity and availability may not lead to their deplorable neglect and the failure to realize the wonderful benefits following their careful and continued observance.

THE SIXFOLD PURPOSE OF YOGA HYGIENE

In short, the ideals of yoga personal hygiene may be summarized thus, having as their main objects : (a) the removal of disease, (b) the purification of all external and internal organs of the body, (c) the maintenance of highest physical efficiency through good health, (d) auto-immunization, (e) longevity, in the sense of getting beyond old age and death, and (f) the mental, moral and spiritual sublimation culminating in the ultimate Absoluteness.

17 Cf. *A Manual of Personal Hygiene*, by W. L. Pyle, A.M., M.D., ix.

THE SIXFOLD PURPOSE OF YOGA HYGIENE

(a) *The Removal of Disease*: Apart from their hygienic importance, the yoga practices and the yoga mode of living have distinct therapeutic values. Thus they not only help an individual to maintain good health all along his study of higher Yoga but also cure him of such ailments as may have hitherto obstructed his path or higher pursuits.¹⁸

(b) *The Purification of the Body*: No one who has personally undergone the course of physiologic yoga practices will for a moment doubt the validity of the above claim. In this regard, it may be pointed out that there is a general agreement among all the Sanskrit authorities on Haṭhayoga that not only the purification of the body but also the remedy for all ills that human flesh is heir to is best achieved through the practice of yoga hygiene and therapeutics.¹⁹ This is made possible by a variety of anti-toxic measures and cleansing processes adopted mainly with a view to securing complete internal cleanliness through elimination of all pathogenic elements from the vital organs of the body.

18 Cf. *Yogasūtra*, I, 30 ; *Haṭhayogasāhītā*, V, 31.

"Again, we are told that before the period of Caraka, the great ancient Hindu medical authority, the yogins and other religious followers found disease, and they thought that their science will be disturbed if they did not take to some system of curative methods and preventive medicine (Cf. *Caraka Saṁhitā*, sūtrasthānam, I, 6 ff.)." For historical elaboration and details, Cf. *A History of Yoga*, by Shri Yogendra, Chapter on *The Development of Yoga-therapeutics*.

19 Cf. *Garuḍapurāṇa* quoted in *Yogasandhyā*, p. 53, Bombay, 1911.

IDEALS OF YOGA HYGIENE

(c) *The Maintenance of Highest Physical Efficiency* : Scientific Yoga recognized the fact that the maintenance of highest physical efficiency depends largely upon the balanced neuromuscular education and coördination, as it is known to affect the quality of health of the body, the mode of living and the perspicacity of the mind. Next to this, the reservation of surplus vitality—which, of course, is possible only by avoiding exaggerated living—is yet another important accessory which equally needs careful adjustments and, in these respects, the yoga hygiene offers many practical and wholesome suggestions. For the yogin, by raising the general tone of his body through the maintenance of maximum vital index with the aid of yoga practices and by a corresponding increase in the conservation of bionergy (*prāṇa*) through the control of physiological activities, secures the best measures of animal economy. It is precisely this which insures positive and sedate good health, efficiency, endurance and longevity.

(d) *Auto-immunization* : What is highly significant about the yoga *kriyās* is that the role of immunity against disease and toxins—which is so widely emphasized by modern science—received in Yoga the same uniform attention as did personal hygiene.²⁰ It was evident then to the ancient yogins as it is now to the modern medical scientists that the healthy body which is quite free from

20 Cf. *Yogayājñavalkyam*, III, 17 ; *Gheraṇḍasāhita*, I, 8/II, 28f.

THE SIXFOLD PURPOSE OF YOGA HYGIENE

all pathogenic impurities (*malākulatvam*)²¹ is by far the best natural immunity against all diseases because it is a well-known physiologic fact that no bacteria can thrive in an ideally healthy organism. It has been conclusively demonstrated by Kellogg and other authorities that the direct introduction of even living cholera germs could not by *itself* produce any evil effects in a healthy colon. Neither can diphtheria nor cold effect a healthy throat ; nor the tubercle bacillus, a healthy lung. According to scientific Yoga, therefore, what is more vital to humanity is not so much the emphasis on the jinx of bacteria as is the maintenance of good health conducive to auto-immunization. It thus means that, if normal good health could be maintained at its maximum level, the problem of immunity gets automatically solved. In consequence, instead of wasting time and energy in fighting against the carriers of diseases, e.g., mosquitoes, flies, rats, fleas, bugs, bacteria and so forth, the yogins prefer to apply themselves seriously and directly—in effect, wisely—to the positive side of this problem by devising ways and means to maintain the day-to-day good health (*ārogyam ca dine dine*)²² at its highest. The system through which this is achieved is the yoga personal hygiene which consists mainly in the elimination of all physical impurities through the daily practice of outer and inner cleanliness (*malasuddhi*) of the body. It is a matter of traditional

21 Cf. *Haṭhāyogapradīpikā*, II, 4, 5f/III, 75, 82 ; *Gorakṣasāṃhitā*. I, 65.

22 Cf. *Ghṛaṇḍasāṃhitā*, V, 80.

IDEALS OF YOGA HYGIENE

experience with the yogins that such continuous purification and immunization of the body ultimately enables the yogin to acquire active cellular immunity even against the deadliest poisons.²³ Fortified thus with the weapon of auto-immunization, he proposes to prolong his life at his own will.²⁴ FIG. 1 symbolizes the contrast between modern medical hygiene and ancient yoga concepts of good health—the former based negatively on external aids to health and the latter based positively on the inner health of all the vital organs—the one acting only as a shield while the other strengthening one's own inherent vitality.

(e) *Longevity*: The idea of old age and death has forever occupied the mind of all leading philosophers and scientists of the world; and it is most appropriate to know what has scientific Yoga to suggest in this regard since the practical yogins could not have left this vital question unanswered. On the basis of their experience, it is argued by the yogins that when the student reaches the perfect state of *khecari*—a stage of suspended animation, either voluntary or mechanical, wherein he is supposed to drink nectar (*amṛta*)²⁵ oozing out from the moon, a symbolic term for some important physiologic organ²⁶—he gets

23 Cf. *Hathayogapradīpikā* with *Jyotsnā*, III 39f., 45 and 75 etc.; *Gorakṣapaddhati*, I, 7, 8ff.

24 *Ibid.*

25 This may refer to either spinal fluid, hormone or autacoid.

26 Less is known but much has been said by the modern physiologists about the "hibernating gland".

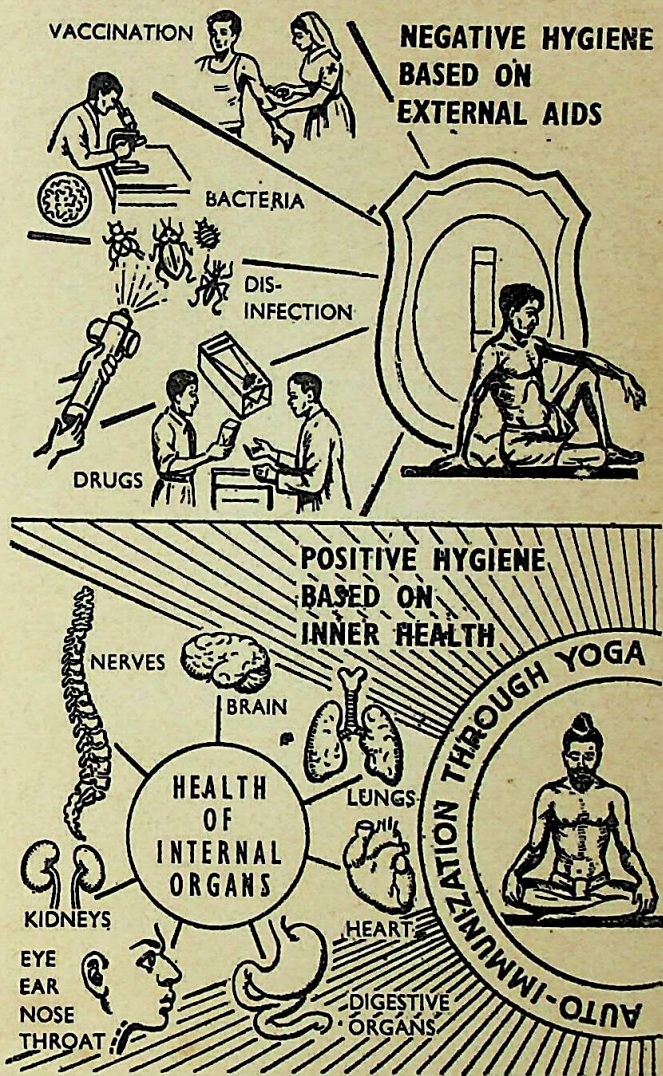


FIG. 1

IDEALS OF YOGA HYGIENE

beyond old age and death.²⁷ How this process operates has been explained in the succeeding chapter.

(f) *Moral and Spiritual Elevation* : As explained previously, the aim of yoga hygiene does not end with a mere acquisition of good health and longevity for through such physical purity and well-being it also aims at mental, moral and spiritual elevation. Besides physiologic processes, the code of ethical conduct and mental discipline which form an essential part of yoga hygiene in its broader sense, Haṭhayoga, really contribute much towards creating a healthy moral and psychic environment whereby the highest in Yoga—the experience of and habituation to absolute consciousness (*kaivalya*)—is ultimately realized.²⁸

THE YOGIN : A HYGIENIC CURIOSITY

The claims of the yogins in the achievement of the above objects may or—for the sake of argument—may not be true in all scientific details, but that is no reason why they should be treated as *prima facie* untrue. The honest course for any critic or scientist who doubts the truth of such claims would be to either personally practise these methods or cause someone else to do the same, and only then criticise the developments not so

²⁷ Cf. *Haṭhayogaṣādhikā* with *Jyotsnā*, III, 44ff., 52, 88 ; *Śivasāṁhitā*, III, 87.

²⁸ It may be observed that, among the many, even the ancient medical authorities accepted this fact of psychic evolution through Yoga. Cf. *Carakasāṁhitā*, *Sāmrasthānam*, I, 36ff.

THE YOGIN : A HYGIENIC CURIOSITY

much with doubt, preconceived prejudice and suspicion as with sympathy. Svātmārāma has made it perfectly clear that not by the mere reading of the texts or by the theoretical knowledge of the practice of Yoga can the highest in Yoga be achieved. All knowledge of Yoga has to be actually put into practice otherwise how can one who does not follow the yoga practices hope to have the genuine experience of what is Yoga ?²⁹

Whatever may the differences of opinion be on certain technical details, it can hardly be gainsaid that the life of the haṭhayogin, on the whole, is a hygienically measured physiologic unit and, therefore, an ideal of physical culture unprecedented—considering its antiquity—in the history of preventive medicine and hygiene. Examined in the light of our most modern knowledge of these subjects, the entire scheme of yoga personal hygiene represents the best means of achieving positive and sedate good health and longevity. No system has so far excelled the main yoga principles and practices involved in the thorough elimination of toxins from the body through natural means—a factor which stands as a main consideration in promoting good health and thus longevity.

Notwithstanding public or domestic hygiene, the individual prophylaxis taught by Yoga does not lack the essentials of a scientific living upon a physiologic basis for it embraces, in effect, all those means which directly contribute to scrupulous

29 Cf. *Haṭhayogapradīpikā*, II, 65.

IDEALS OF YOGA HYGIENE

and precise care of the whole body. Although followed secretly and exclusively by a certain spiritually-minded sect of people in India and presented in its primitive originality, this code of personal hygiene need not prejudice the modern scientific students because science should concern itself mainly with the intrinsic value of the materials for research and not with the rust of antiquity or racial sectarianism.

To those who follow the current unnatural and nervous mode of living, no doubt, it may appear that the yogin is rather unnecessarily over-particular about his health bordering on hygieolatry, and also that the too many details of the yoga hygiene are at present absolutely out of consideration. First, because it requires sacrifice of time both in acquiring these habits and in putting the knowledge and processes so acquired into practice; and secondly, because the major yoga system could not be easily grafted into our daily duties—the requisites essential to the study of yoga practices being in sharp contrast to our concepts of modern living. To an average layman, therefore, the yogin may as well exist more as an academic and hygienic curiosity rather than an ideal. But when it is considered how much time, money and suffering can be saved and how much more efficient, useful and happy we can make our living by *being healthy*, any objections to the practice of yoga hygiene—for example, the sacrifice of time, inconvenience, and such excuses—become evidently ridiculous.

CHAPTER II

POSSIBILITIES OF ETERNAL YOUTH

By the continuous practice of Yoga, the yogin who in years is old becomes young again.

Haṭhayogapradīpikā, II, 47/III, 65.

Free from all diseases, the yogin evolves a lissom body delicate as the tender inside of a lotus-stalk and thus enjoys youthful longevity.

Gorakṣapaddhati, I, 14.

Such a yogin overcomes death.

Sīvasaṃhitā, III, 91/IV, 70.

OLD age and death have been for generations the most baffling problems to the scientists and philosophers of all ages. In consequence, interpretations of a varied nature have so far been offered by them and many such expositions are continually forthcoming but none that have stood the test of time or of reason. In ancient India, the Hindu medical authorities held that rejuvenation (*kāyākalpa*) is possible through the restoration of biochemical balance. In the West, Voronoff of the famous monkey gland theory assured science

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that rejuvenation is quite feasible. Others insist that, if satisfactory provision could be made for storing human spare parts, life could be extended indefinitely. Carrel suggested rest-periods for wasted organs through, what may be termed, cold-storage process ; and there are many others both in the East and the West who are equally confident about rejuvenation through their own prescribed methods and elixirs—the latest addition being Bogomolets serum.

CAUSES OF OLD AGE

As to the causes of old age which disturb the natural harmony and rhythm of health, Hutchinson propounds the following three scientific reasons : First, in the case of bones, as we grow in years, the cartilages of childhood give place to hardened mineral substances. No sooner the percentage of this mineral matter—the lime salts, chiefly calcium phosphate—increases than the cartilages gradually begin to ossify and become more and more brittle. In advanced years, this mineral deposit in the bones, on reaching an abnormal proportion, causes old age through physiologic dysfunction. Secondly, in the circulatory system too, the accumulation of sedimentary mineral deposits tends to inelasticity of the body in general and arteriosclerosis in particular thus hastening old age through autotoxis. Thirdly, as to the muscular system, failing adequate daily measures for suppleness, inelasticity causes stiffness with

CAUSES OF OLD AGE

consequent loss of the normal tone and pliancy. These factors ultimately disturb the natural harmony between the various internal organs usually ending in physical deterioration called old age.³⁰

Further, according to Friedenberg, the main causes of old age are : (i) the deformation in the curvature of the spinal column which when becoming marked interferes with the normal nervous impulses, (ii) the degeneration of the air-cells in the lungs being unable to carry on efficiently the work of oxygenation, (iii) the atrophy of the endocrine glands leading to loss of resisting and preventive powers and potency in matters of self-preservation affecting functional activities of the other organs and (iv) the worn-out condition of the heart wherein the circulation of blood lacking in necessary impetus fails to penetrate and move freely and fully throughout the system.³¹

To such scientific speculations may be added the recent findings of Petrova and Usurinov who ascribe old age to overtaxed cortex of the brain and to the pigments of old age both of which are found to be completely absent in the organisms of young children. The Moscow Medical Institute hope that the experiments on old age and longevity now being carried out will enable man to prolong the span of human life to upward of 175 years under perfect conditions of health.

30 Cf. *Old Age, Its Causes and Prevention*, by Dr. Woods Hutchinson.

31 Cf. An article in *The New York Herald* by Dr. Percy Friedenberg.

POSSIBILITIES OF ETERNAL YOUTH

A FEW DEMONSTRATIONS OF ORGANIC CONTROL

Needless to state that, in formulating the code of personal hygiene for good health, the ancient yogins had given their most critical attention to the prevention of old age and the promotion of longevity. In fact, they probed much farther in the secrets of living organisms so that even those organs which are supposed to function automatically or involuntarily are through gradual training brought under personal control and volition. Even under modern conditions, quite a large number of demonstrations of this nature tested by scientific investigators are available for research. They represent the control of the higher autonomic nervous system gained through yoga technique. For example, there are instances of: (i) inflating only one of the lungs to thrice the size of the other performed by the author before scientific men including Dr. Meltzer of the Rockefeller Institute for Medical Research, New York 1920,³² (ii) stopping the beating of the heart, a demonstration by Desabandhu conducted under medical supervision at the Grant Medical Union, Bombay, 1926,³³ and (iii) being buried alive several feet underground covered over with earth for a period of eight days, a performance in Berlin by an orientalist under

32 Cf. *India, The Land of Miracles*, by Vincent Anderson, p. 8. The reports also appeared in the local press of America during September 1920. For other similar scientific demonstrations by the author, refer to *Yoga*, Vol. III, 64; *Science of Yoga*, by Shri Yogendra, pp. 91, 92ff.

33 Cf. *The Mysterious Kundalini*, by V. G. Rele, pp. 7, 8ff.

ART OF REJUVENATION

medical test.³⁴ These facts about the control of many involuntary organs and even of the whole body show most certainly how far did practical Yoga succeed in mastering certain scientific truths hitherto unknown but through the knowledge of which even the modern students of Yoga are able to demonstrate such powers as transcend our present knowledge.³⁵

ART OF REJUVENATION

The yogins contend that it is quite possible to avoid old age and further that even those who have grown old can become young again through continuous and thorough elimination of toxins (*mala*) from the body.³⁶ This course of purification (*malaśuddhi*) for ensuring healthy organism is further supplemented by such vitalic body-building methods—to be sure, not of an athletic nature—as scientifically encourage proper elimination and nutrition besides coördinating functional harmony

34 Besides the record case of four months' interment of Sādhu Haridāsa [Cf. *Gheraṇḍasāṃhitā* (Tr.), Appendix, by S. C. Vasu, p. xii], there are quite a number of other cases reported by medical practitioners in India who had occasion to witness such performances. The Berlin case cited above is illustrated and reported in *Popular Mechanics*, 1920 p. 840.

35 "In freeing himself completely from the natural world with its laws and from the sphere of natural causation altogether, the yogin becomes logically, a supernatural being, endowed with all manners of powers, which because they transcend the category of cause and effect, we call magical." *History of Religions*, by G. F. Moore, Vol. I, p. 323.

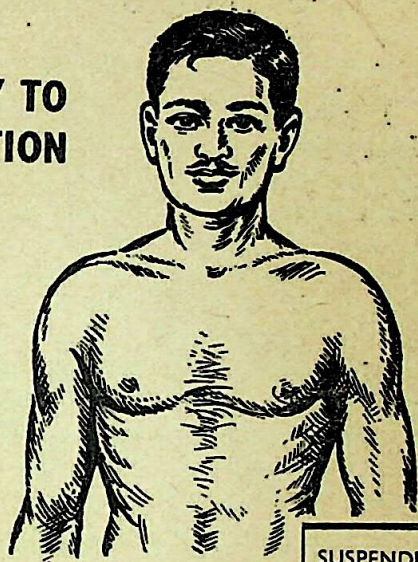
36 Cf. *Gorakṣasāṃhitā*, I, 59.

POSSIBILITIES OF ETERNAL YOUTH

within the body which is being brought under control through gradual training. What the modern scientist tries to achieve through grafting of the glands, resuscitation of isolated organs by cold-storage process, the elimination of old age pigments and such other means, the scientific yogin does all these by self-treatment or autotherapy. For example, first, by thorough-going elimination of all toxins; secondly, by concentration of bionergy (*prāṇa*) on any specific organ of the body where degeneration has or is apt to commence—through transfusion from other parts—with a view to directly regenerating that organ so that it may resume such normal activities as are conducive to a healthy organism; and, thirdly, by giving rest to the entire system through conscious but suspended animation extending to varying periods from weeks to months.³⁷ There are quite a large number of yoga processes to defer old age and aid rejuvenation, their elaboration and technical details having been presented in the succeeding volumes of this series. Suffice it to say for the purpose of this work that scientific Yoga, Hāthayoga, promises young age to the old, and the yoga personal hygiene is, in effect, the real stepping stone. FIG. 2 represents the steps of *kriyāyoga* which lead to rejuvenation.

³⁷ Reporting this general practice among the yogins which he has personally observed 400 years ago, the author of *Dabistān* states, "It is an established custom among the yogins that, when malady overpowers them, they bury themselves alive." Cf. *The Dabistān*, translated from the Persian by Shea and Troyer, Vol. II, p. 138, Paris, 1843.

YOGA WAY TO REJUVENATION



SUSPENDED
ANIMATION
(KHECARĪ)

CONTROL OF
BIONERGY
(PRĀṆĀYĀMA)

VITALIC
BODY BUILDING
(DEHASIDDHI)

ANTI - TOXIC
METHODS
(MALAŚUDDHI)



FIG. 2

POSSIBILITIES OF ETERNAL YOUTH

SCIENTIFIC ACKNOWLEDGEMENTS

Physiologists of such eminence as Halliburton, Brubacker and others admit that death from old age is comparatively rare—the common cause of death being accident, in which term we also include disease.³⁸ In young age when the vitality of an individual is at its height, many a disease is overcome, but as the powers of resistance diminish with declining years, some ailment, invited unconsciously mostly through habitual indolence, attacks some important organ and leaves the body unable to repel its attack. Natural resistance once lost, nothing avails. This ends the history of an individual and we call it death.

That it is possible not only to live for more than one hundred years but also for an indefinite length of time is now acknowledged as a scientific possibility by even the most conservative and critical medical authorities. There are clear instances on record of persons who have lived for more than two hundred years, and even the current news brings to light historical data about many such people in various parts of the world who have passed their centuries and are still going strong. The ancient yogins hand us a list of many distinguished students of Yoga who had lived for more than three centuries.³⁹ Shaw who prophesies in

38 Cf. *Handbook of Physiology*, by W. D. Halliburton, p. 937

39 Cf. *Haṭhayogapradīpikā* with *Jyotsnā*, I, 5, 6ff. ; for names of the yogins in the sixteenth century, Cf. *The Dabistān*, Tr. Vol. II, pp. 137, 138ff.

SCIENTIFIC ACKNOWLEDGEMENTS

his remarkable book⁴⁰ a life of three centuries for man may not be so absurd as at first sight he seems. It is likely, however, that under the present conditions of artificial living, Shaw's prophecy may appear a bit exaggerated ; nevertheless, there is a possibility that human life could be extended many more years beyond its present span. At what future period three hundred years may become the average of human life we are unable to determine, but in this age of advancement, one cannot afford to laugh at prophecies.

How rejuvenation is possible at least in the case of a worm has been announced by Crew along with the details of technique he employed.⁴¹ "If the flat worm, planarian, is starved," he says, "it will shrink from 25 mm. to about 6 mm. and then it will exhibit the same rate of metabolism as does a young one of equal size. The rejuvenated individual not only looks young, but is young, and grows again, when fed, into an adult ; moreover, this process can be repeated indefinitely, and it is on record that a planarian has been made to live about twenty times longer than the ordinary length of life of this form." "It has been claimed," adds Crew, "that systematic fasting, has accomplished wonders in the case of the human also" ; and it is quite probable that at some later date we might manage to prolong human life as well.

40 Cf. *Back to Methuselah*, by Bernard Shaw.

41 Cf. An article by Dr. F. A. E. Crew in a recent number of *The Nineteenth Century*.

POSSIBILITIES OF ETERNAL YOUTH

The practical yogins, hathayogins, in India who claim the knowledge of the process of rejuvenation some thousands of years past even before the death of Christ leave us a number of secret practices as a precious treasure-chest; and from the author's own personal knowledge he can assure the readers that their methods and technique are absolutely in conformity with the known Laws of Nature and the modern findings of medical and other sciences. There is, therefore, nothing absurd in the claim of eternal life (*cīram jīvati*) which Yoga promises, for we are reassured by eminent medical authorities like Fisk and Fisher that "so far as science can reveal, there seems to be no principle limiting life. There are many good and bad reasons *why* men die, but no underlying necessary reason why they *must* die."⁴²

Carrel, whose work in the war zone has contributed so much to surgical progress, has kept tissue cells of animals alive outside of the body for the past seven years. These cells are multiplying and growing, apparently unchanged by time, to all appearances *immortal* so long as they are periodically washed of the accumulated toxins and nourished in a proper medium. "If we could at intervals thoroughly wash man free of his poisons and nourish him, there seems to be no reason why he should not *live indefinitely*."⁴³

42 Cf. *How to Live* (Fifteenth Edn.), p. 161.

43 Cf. *The Conquest of Chronic Disease*, Supplementary Notes.

YOGA OUTLOOK ON DEATH

The recent experiments by Krakov, Kulyabko and Osinovasky have since proved how resuscitation of the isolated organs is a scientific fact and which, if carried further to its logical conclusion, could even dare to argue with death. Valentin Cheropanov is a living example of restoration to life after death (from wounds) with the aid of the resuscitation technique. To the scientific yogins who are in possession of the knowledge of *prāṇavinimaya* or bionergy transfusion, such discoveries do not come as a surprize. In fact, the vital difference between these two categories of knowledge and experience is that while in the case of the yogins it is precise, finer and subjective, it is, for obvious reasons, empiric, gross and objective in the case of all other scientists.

YOGA OUTLOOK ON DEATH

Towards death, however, the yogin is very indifferent for, as soon as he feels that his work in life is over, "like the snake he is happy in giving up his old skin."⁴⁴ In spite of such pessimistic attitude which the yogin maintains towards old age and death, it is stated by the authorities that he can quite easily defer both, if he so desires. No living proof of this assumption can be cited just at the present time, but the optimism still holds good in theory and the possibility of eternal youthful life still remains a possibility.

44 Cf. *Sāṃkhyaparavācanasūtram*, IV, 6f.; also *Rāmāyaṇa*, III, ix., 32, 6.

POSSIBILITIES OF ETERNAL YOUTH

Even if we leave aside these debatable claims and exaggerations—such as they are likely to appear to many—one thing nevertheless seems to impress us, namely, that the secret of certain supernormal and supernatural physiopsychic phenomena through the knowledge of which the yogins are able to exhibit wonders, especially the perfect control of the body and mind, *must* yield to the practical student of Yoga the key to extend the period of his life.

From what is still available through traditions and texts, scientific Yoga does supply us in considerable detail all the essentials of both the theory and practice of such a system as endows eternal youth through the maintenance of a healthy organism. These yoga *kriyās* consist of self-culture and self-treatment of cleansing, purifying and vitalizing nature which through synergic process continually overhauls the body. Their technique is not often revealed and the secret is thus handed down only by the teacher to the disciples from generations to generations in an unbroken tradition where it is usually followed under the closest guidance of a practical teacher (*guru*).

CHAPTER III

CARE OF THE TEETH, MOUTH, TONGUE, EAR AND AIR SINUSES

The purification of the teeth, the mouth, the tongue, the ear and the air sinuses, which forms the first duty of the yogin, should be scrupulously attended to every morning.

Haṭhayogasamhitā, II, 16ff.

THE TEETH AND MOUTH

THE one source of infection and of self-poisoning so open to all kinds of disease and especially to pus bacteria is the mouth. Infections through the mouth occur too often for the very simple reason that the mouth secretions and the surrounding mucous membrane do not possess the same protecting power as do other organs of the body. It has been pointed out very recently by the medical researchers that infection occurring at the extremity of the roots of a tooth, or within the tooth itself, besides being common, often has a deleterious effect upon the general health.

There are two main forms of mouth-danger :
(i) dental caries, a decay largely consisting of chemical process and (ii) pyorrhoea, also known as Riggs' disease, which is an infection by pus bacteria and sometimes also by animal parasites.

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Both these maladies chiefly effect the teeth and can be easily prevented if scrupulous cleanliness is observed in regard to the teeth and the mouth. Such grave organic diseases as arthritis, endocarditis and gastrocolitis as also many other functional ailments of the special organs—most often the eye, the ear and the nose—have their origin in an unhealthy state of the teeth and the mouth.⁴⁵ Even the rise and fall in the blood pressures, the toxic elements in the blood and secretions, and the serious disturbances of the heart, the kidneys, the stomach, the intestines and even the joints are frequently due to mouth infections. Stockton complains that "The importance of the teeth in digestion is not sufficiently recognized. Many cases of chronic indigestion arise from imperfect mastication due to faulty dentition."⁴⁶

And, while the dentists may be able to repair the teeth mechanically, they certainly cannot cure the weak constitution to which the decay is due. For this purpose, the yoga method of cleansing the teeth (*dantadhouti*) may, however, be found more effective than the general form of modern dental hygiene. This yoga process resolves itself into a few simple principles, namely, the thorough dislodgement of foreign matter, general cleansing and brushing to be followed at least

45 Cf. *Suśrutasamhitā*, nīdānasthāna, XVI, 1, 2ff; *Nutrition and Physical Degeneration*, by Dr. W. A. Price.

46 Cf. *Hygiene of the Digestive Apparatus*, by C. G. Stockton, M.D. p. 26.

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twice a day, both in the morning and at night before retiring, with the use of (a) an improvised tooth-brush, (b) some form of dentifrice, and (c) a mouth-wash. The modern dental hygiene recognizes these factors as theoretically important ; but, when compared to the yoga methods, it has to be proved whether the modern means employed are adequate.

(a) *The Tooth-Brush* : "There are eminent authorities who condemn the tooth-brush, first because the bristles tear the gums and drive the particles of decomposing food into the narrow spaces between the teeth. Second, the tooth-brush itself, after being used a few times, becomes thoroughly infected and there seems to be no very simple and efficient method of disinfecting it."⁴⁷ Head, Miller, Hutchinson and many other dental authorities and research workers have, after careful investigations and laboratory tests, declared unanimously that the modern tooth-brush is not only a dangerous and filthy instrument but also that the use of such a foul brush is worse than not using the brush at all.

Although it is possible to disinfect a tooth-brush with germicidal stable antiseptics, a majority of users seldom follow this practice. Precisely for this reason, it has been advocated by Egbert, Kellogg, Macfadden, Bilz and others that the best hygienic appliance, for the proper cleansing

47 Cf. *The Health Question Box*, by J. H. Kellogg, p. 170.

THE TEETH, MOUTH, TONGUE, EAR AND SINUSES

of the teeth, is an orange-wood polishing stick or a stalk of celery which must be used only once and then thrown away. The latest discovery in dental hygiene, incidentally, is the Hygos method recommending the use of: (i) a paper prepared from wood pulp, and (ii) a polishing stick of orange-wood. It is hailed by the dental enthusiasts as the *new Dental Hygiene*.

All such scientific advances evidently lead us back to the so-called old-fashioned and obsolete technique of the ancient yogins. For what the yoga hygiene recommends is the use of fresh babul twigs, the delicate shoots of a banyan-tree or the branchlet of a nim tree⁴⁸—most of these having strong alkaline and astringent properties according to Suśruta—in the place of a modern prophylactic tooth-brush.⁴⁹ This is improvised by chewing one end of the fresh wood polishing-stick⁵⁰ till it gives off a fine soft tuft of bristles. Besides polishing the enamel, this process supplies also the general need of exercising the teeth since the softening of the wood-brush could not be accomplished without

48 For a complete list of other trees with similar properties, refer to *Carakasamhitā*, sūtrasthānam, V, 70.

49 Commenting upon the "Teeth of the Hindus", a large majority of whom practically follow the process of yoga dantadhouti daily, Egbert in an interesting article in the *British Journal of Dental Science*, observes that he examined over thousands of people and has never found a single case of dental caries or malformation. He attributes this remarkable immunity to the use of primitive but efficient brush improvised in the form of a freshwood polishing-stick.

50 Skr. *dantakāṣṭha*, *dantapavana* ; Hindi *dātauma* ; Guj. *dāṭaṇa*.

THE TEETH AND MOUTH

vigorous and hard chewing.⁵¹ This teeth-gymnastics has to be continued for a period of five minutes or more, depending upon the kind of wood selected and also upon the strength of the teeth of an individual. After each use, such a dental wood-brush is thrown away, and so there is no further possibility of bacterial or other infection. It should be noted that the dental sticks used are not dry but, as far as permissible, broken off fresh and green from the plants or trees just before cleansing. If, however, fresh sticks are not available, then old half-dried sticks may even be used after they have been soaked in water for some time. These sticks generally measure from six to seven inches in length and a quarter of an inch in diameter (Suśruta).

(b) *The Dentifrice* : Of equal importance is the proper selection of a dentifrice. The large manufacturers of this stuff available in the bazaars have counter-claims against their rivals, and the ordinary buyer is certainly puzzled because he is unable to determine which is relatively more effective. The requisite properties, however, for a good dentifrice are that it should be sufficiently coarse to produce the necessary polishing and grinding effect. It must also be detergent to wash the teeth, besides being germicidal so as to destroy

51 Identical opinions have been expressed on the various benefits of *dantakāṣṭha* and the properties of many kinds of wood trees recommended along with observations on dental hygiene by the ancient Hindu medical authorities. Cf. *Carakasamhitā sūtrasthānam*, V, 69ff.

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all the bacteria that it meets. While any powder that is too soft or too fine is of little avail because it is unable to remove the formation of tartar tarnish over the teeth, the strong and coarse dentifrice by its corrosive scratchy action likewise injures the enamel. Although Kellogg suggests that wood fibre is one most suitable substance for this purpose, it goes without saying that such a substance or any form of wood pulp is generally not used in the dentifrices sold in the market.

The yogins prepare their own tooth-powder, by a varied proportion of catechu (10%), myrobalans (80%), and turmeric or alum (10%) properly mixed and finely pulverized. When available, cocoanut or almond shells are burnt and their coal, after being powdered, is mixed (1:3), with the above preparation. A little of this mixture (about 20 gr.) is placed on the soft end of the wood brush (*dantakāṣṭha*) and rubbed well against the teeth till all the impurities on both sides of the teeth have been scrupulously removed.

A very useful combination of tooth-brush and tooth-paste may however be found in the use of the mango leaves. Laboratory tests carried out recently by Bhat and Shetty indicate that for oral hygiene—especially for cleaning the teeth—mango leaves well chewed and rubbed is a more effective brush and dentifrice than the popular (in India) cocoanut inflorescence-seath carbon or the babul twigs. It possibly accounts for the comparatively excellent teeth the South Indians, notably the

THE TONGUE

Mangalorians, possess. The use of chlorophyll in all modern dentifrice is one of the many instances of how ancient wisdom is arrogated by the topical sciences.

(c) *The Mouth-wash* : The freshly secreted saliva formed from healthy blood is now considered to be the best of all mouth antiseptics. An antiseptic mouth-wash, therefore, so largely recommended is really not such a great necessity to the healthy individual as commonly believed ; first, because the saliva in the mouth contains a starch digestant—able to digest starch deposits on the teeth which deposits may otherwise ferment and form acids—and secondly, because the saliva is also alkaline powerful enough to neutralize mouth acids, the cause of tooth decay. The yogins use only pure water for rinsing and gargling the mouth and the throat respectively three to four times, usually followed after the scraping of the tongue.

THE TONGUE

"It is not generally known that tartar and decomposing material tend to collect on the root of the tongue and are more often responsible for foul breath than stomach conditions."⁵² Most persons do not know that the base of the tongue is often the place from where bad breath arises. Ingals of Chicago remarks that, "The back of the tongue is often covered with masses of thickened

* 52 Cf. *How to Live* (Fifteenth Edn.), by Drs. Fisher and Fisk, p. 100.

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decomposing epithelium which may extend forward to the tip and cause visible '*coating of the tongue.*'"⁵³ A large number of other disorders are also traceable to the unhealthy condition of the tongue, and it is just as imperative to scrape the tongue well as to cleanse the teeth and the mouth.

In diagnosis, it is an accepted medical fact that the condition of the tongue acts as an index of the state of health of the alimentary canal more truly than other external organs. It is held by the yogins that the neglected and, therefore, unhealthy tongue likewise reacts unfavourably on the alimentary canal. The yoga practice of *jihvāmūlaśodhanam* or the cleansing of the root of the tongue consists in reaching the back of the tongue, as far as one can, and thus removing with the finger-tips whatever mucus and phlegm deposits may have accumulated there.

The practice of brushing the tongue and the root of the tongue with an ordinary tooth-brush is really not so safe as it appears because the hard bristles, if thrust too far by oversight, may lead to an injury of the oropharynx, or cause extreme gagging or sometimes may even hit the roof of the mouth. In this respect, the yoga method is comparatively more precise, simple and effective. It is practised thus :

Join together the first three fingers known as the fore-finger (*tarjani*), the middle (*madhyamā*), and

⁵³ Cf. *Vocal and Respiratory Apparatus*, by E. F. Ingals, p. 14.

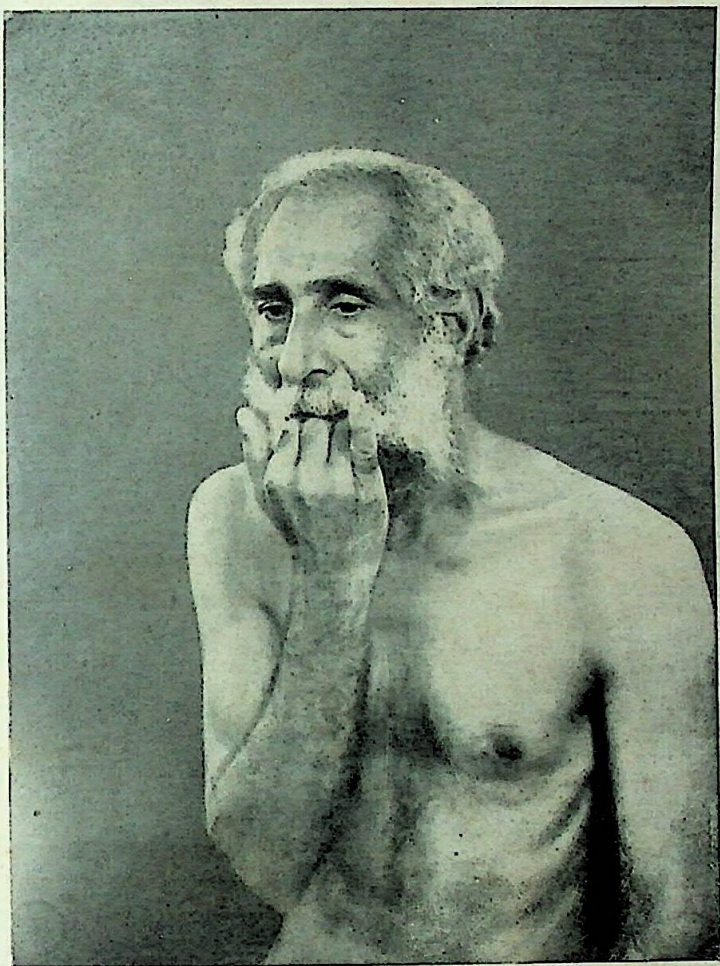


FIG. 3



FIG. 4

THE EAR

the ring finger (*anāmikā*) ; push them into the throat deep enough and rub well till the root of the tongue is cleansed. Refer to FIG. 3. While washing thus, efforts should also be made simultaneously to throw out whatever phlegm and mucus (*kafa*) may have surrounded the cavity. After a minute or two of such cleansing, rub the tongue with butter very sparingly so that the scraping which is to follow may not lead to an irritation of the surface. Then hold the tongue scrapers on and below the tongue pulling the same slowly downwards.⁵⁴

THE EAR.

To all appearances, the hygiene of the ear is unnecessary, mainly because Nature has sufficiently provided for the removal of the ear-wax and otic dust scales periodically, and thus no special attention is ordinarily given to this organ. It may, however, be observed that the unhygienic condition of the ear has a remote bearing upon the general health of an individual and is equally responsible for certain disorders like vertigo which is often due to pressure of wax upon the ear drum.

For the care of the external ear, Haṭhayoga recommends some sort of a rotary rub (with the

54 That the practical yogins should have realized the import and necessity of not only cleansing the surface but even the base and lower portion of the tongue most carefully twice everyday, namely (i) early morning and (ii) before retiring to bed, when even the casual cleansing of the tongue was not so popular, is really remarkable. Cf. *Gheraṇḍasāṃhitā*, I, 29, 30ff. ; *Haṭhayogasāṃhitā* V, 22.

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thumb) on all sides of the ear turned downwards—especially in front—to allow the wax or dust scales to loosen and fall out, besides a good wash at the time of taking a bath. The parts which need special attention are the auditory canal and the middle ear. Wax generally does not collect in a healthy ear, but it is just as essential to see that the ear canal is kept clean. Local earache, slight itching and irritation, or inflammation of the canal could not only be prevented easily but even be cured by a little daily care of this organ. For one thing, the casual use of ear drops to soften the wax should be avoided for it really tends to swell the mass and thus increases pressure without any compensating advantage. Antiseptic cleansing is considered by Randall, a specialist in diseases of the ear, as the first and sometimes the only requisite in abating or curing ear-conditions and this therefore, should be scrupulously carried out. Careful and vigorous syringing with pure hot water, or with 2 per cent potassium permanganate solution (105° to 115°F.), is generally recommended by the physicians for removing the ear wax.

On the general belief that the ear does not need any care, the cleansing of this organ has been excluded from the morning toilet and nothing has been done by way of emphasizing this need or educating the public on this subject by the modern writers on hygiene. The practical yogins, however, who are quite particular about the care of every part of the body include the cleansing of this organ—

THE FRONTAL AIR SINUSES.

most necessarily, the ear canal since the middle ear is reached only through the process of *neti*—in their morning hygienic duties.

The yoga purification of the two holes of the ears known as *karnarandhra dhouti* consists of irrigating the orifices at certain intervals—once a week—and of washing the external parts with plain water every day ; no better solvent than plain hot water is required. The index finger is generally pushed in slowly and moved from side to side with slight pressure against the walls to ensure removal of cerumen or ear wax, dry dead cells and dust that may have collected there during the day.

THE FRONTAL AIR SINUSES

Very little is known to the average man of the importance of keeping the frontal air sinuses clean and healthy. These are two bony air-chambers at the base of the nasal canals which connect the corresponding nasal cavities by means of a passage called the frontonasal duct. Such morbid affections as the polypi, suppuration of the air-chambers about the nose, sinusitis following an ordinary nasal catarrh etc. arise mostly from an unhealthy condition of the air sinuses. All this can be easily avoided by keeping the air-chambers germless and aseptic by frequent washing with saline solution through the suction and snuffing process of *neti*, and also by hardening these cavities through vigorous exercise and oxygenation recommended for *kapālabhāti*, usually

to be followed by an external frontal massage which should be moderately deep.

Of these, *kapālabhāti* or the internal cleansing of the forehead is the more effective method for the purification of the frontal air sinuses.⁵⁵ Stand erect with the chest forward and the arms passively hanging at the sides, or sit comfortably on a chair, or assume any meditative posture fully relaxed but with the chest thrown forward—whichever is found convenient.⁵⁶ Now, begin throwing out the breath from the lungs, and, when you feel that they are completely empty, start taking in the breath. Then, without retaining the same in the lungs (the object being to allow the air to reach only upto the frontal air cavities so as to offer an opportunity for a thorough air-bath within), exhale quickly. It means that both the inhalation

⁵⁵ Cf. *Haṭhayogapradīpikā*, II, 35. According to *Gheraṇḍasaṃhitā*, (I, 55) and *Haṭhayogasāṃhitā* (V, 45), there are three distinct modes of *kapālabhāti*, and the process hereinabove elaborated is termed *vātakrama* *kapālabhāti* or the method of cleansing the air sinuses through oxygenation. The technique has two interpretations, namely, (i) that it can be performed like any ordinary breathing through both the nostrils, and (ii) that the breath is to be taken in through one nostril and expelled through the other, and thus repeated alternately.

⁵⁶ During cleansing processes, the posture generally assumed is the squatting position. There is, however, no mention in the yoga texts of any particular posture being essential for the practice of *kapālabhāti*. Certain practices do require the use of certain postures to harmonize with co-ordinated physical reactions, and in the case of *kapālabhāti*, the one most suitable is *sukhāsana*. Cf. *Yoga Physical Education*, by Shri Yogendra, 7th Edn.

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(*pūṛaka*) and exhalation (*recaka*) should follow each other without a break and in rapid succession.

What has to be remembered is that no unusual strain or fitfulness should disturb the respiratory process, and jerks and forceful inhalations and exhalations should likewise be carefully avoided. Continue to inhale and exhale alternately, without retaining the breath in the lungs. No sooner the inhalation is complete than it should be followed up immediately by a rapid exhalation. Both the movements must be deep and rhythmic. For instance, simulate the deep and rapid breathing that one experiences during running—exhaling the breath soon after it is inhaled, and inhaling and exhaling it quickly again and again, with the same ease and rapidity as a pair of bellows. Whenever fatigue or shortness of breath is felt, rest for a few seconds, take in a full deep breath and continue again. In the beginning, start with only 15 rounds to every half a minute and gradually increase to 30 and later even to 60 for the same period. The increase in rounds should, however, in no way effect the ease, the rhythm and force of breathing. One need not devote more than three minutes to this practice. Those unaccustomed to deep or prolonged breathing may find, in the initial stages, a tendency to dizziness or shortness of breath which soon disappears with the practice of a few days.

Apart from the internal purification of the frontal air sinuses through (i) the oxygenation

method of *vātakrama kapālabhāti* and (ii) the nasal cleansing as suggested under the *Care of the Nose*, strong rubbing and massaging of the depression in the forehead near the bridge of the nose with the thumb of the right hand is also advised as being an extremely useful adjunct. This latter process which is termed *kapālarandhradhouti* is regarded as an aid to curing certain diseases (of the eye, ear, nose and sinuses) arising from the derangements of the phlegmatic humours.⁵⁷

THERAPEUTIC VALUE OF KAPALABHATI

Laboratory tests carried out at the Institute and the clinical data compiled during the four decades indicate remarkable therapeutic value of *kapālabhāti* in the treatment of nasal catarrh, rhinitis, coryza, sinusitis and bronchial affections of the respiratory system.⁵⁸ When applied in con-

57 Cf. *Gheraṇḍasāṃhitā*, I, 34, 35 ; *Haṭhayogasāṃhitā*, V, 24, 25.

58 Mention may be made of a typical case record Am. 438. Mr. T. J. P. of Fulton Street, New York City, age 36, suffered from bad breath for a number of years. In course of time, he developed suppuration of the sinuses and the noxious discharge proved quite annoying. Local medical treatment did not satisfactorily relieve him of his ailment, and a minor operation was suggested as the only alternative which the patient did not desire to undergo. In the meantime, however, he subjected himself to the yoga treatment and, apart from the usual care in diet, posture-exercises and sun-bath etc., he was specifically treated by the process above suggested. Surprising as it may seem, the patient responded very favourably and, when discharged, after eight weeks of his stay in the Institute, he was completely relieved of his trouble. For similar case Reports, Cf. *Yoga* Vols. IV and V.

THERAPEUTIC VALUE OF KAPĀLABHĀTI

junction with the head-low postures and the deep and rhythmic actions of the diaphragm, its curative effects are considerably enhanced. In the case of nasal ailments, it should be preceded by an antiseptic *jalaneti* with a view to minimizing the risk of spreading infection. The cleansing of the back and root of the tongue and the irrigation and massage of the nasal cavities are in themselves the best means of avoiding and curing bad breath and the cultivation of pus bacteria in the frontal air sinuses.⁵⁹

The cleansing—spoken of as purification in Yoga—of the teeth, the mouth, the tongue, the ear and the air sinuses is regarded by many Hatha-yoga authorities as a single process called the fivefold *dantadhouti*, the morning toilet.⁶⁰ Should an objection be raised that these practices involve sacrifice of time from the nervous hurry worry of modern life, then it may be pointed out that, considering the physiologic benefits derived therefrom, the total time taken up by these hygienic duties is really very insignificant.

YOGA FACIAL HYGIENE

The table hereunder annexed may prove useful in adjusting the necessary time one should

59 Also compare opinion of Dr. E. F. Ingals in *Hygiene of the Vocal and Respiratory Apparatus*, p. 107.

60 In India, the first to recognize the hygienic virtues of this fivefold facial hygiene were the early Hindu medical authorities. Cf. *Carakasamhitā*, sūtrasthānam, V, 68ff; *Suśrutasaṃhitā*, sūtrasthānam, XLVI, 482ff.

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spare for the morning yoga toilet. The period assigned to each is calculated approximately and represents the minimum. The same, of course, can be easily varied to suit individual requirements.

ORGAN	YOGA METHOD	FREQUENCY	TIME
The Teeth and Mouth	<i>Dantadhouti</i>	Morning and Evening	5 mnts.
The Tongue	<i>Jihvāmūlasodhanam</i>	„ „	1 mnt.
The Ear (external) „ (canal)	<i>Karṇadhouti</i>	Morning	1 mnt.
	<i>Karṇarandhradhouti</i>	Once a week	2 mnts.
The Air Sinuses	<i>Vātakrama Kapāla-bhāti</i>	Morning and Evening	2 mnts.
„ „ (frontal)	<i>Kapālarandhradhouti</i>	„ „	1 mnt.

CHAPTER IV

CARE OF THE NOSE

The practice of nasal cleansing purifies the air sinuses, invigorates the brain, tones up the optic nerves and thus improves sight.

Haṭhayogapradīpikā, II, 30.

SUFFICIENT attention has not yet been directed to the hygiene of the nose which is wrongly supposed to be the least important organ by the physiological text books; while, on the contrary, it is the main external organ that keeps functioning even to the last moment of our earthly existence. Nasal toilet has, therefore, not become so common as the daily cleansing of the teeth, mouth and tongue.

IMPORTANCE OF NASAL CLEANSING

That many of the diseases like tonsillitis, mumps, sinusitis and even diphtheria, infantile paralysis, measles, scarlet fever, influenza, tuberculosis and rheumatism etc., could be easily prevented by taking good care of the nose, of course, including the general hygiene of the other organs, is now freely admitted by the medical practitioners.⁶¹ Further, the ordinary

61 Cf. Dr. Pyle's *A Manual of Personal Hygiene*, p. 102.

CARE OF THE NOSE

nasal affections such as the polypi, adenoid growth, deformities of the septum and the most common of all troubles—the recurring nasal catarrh—are also all mostly preventable and could be easily avoided by a little timely care of this organ. Notwithstanding the special value which scientific Yoga attaches to the nose—the two nostrils, *pingalā* (right) and *iḍā* (left)—having solar and lunar affects on and correlationship with the nervous system,⁶² purely from the medical and hygienic considerations alone, the importance of nasal cleansing cannot be over-estimated. “The deaf, mute and the insane, even with loss of taste, still live while the nasal organ is active ; and in fact, cleansing the nostrils is *the* cure for the insane and will diminish insanity ninety per cent ; yet physiological text books teach that it is the least important organ.”⁶³

Ordinarily, whatever dust is inhaled lodges on the mucous surface of the nasal canal and is pushed towards the outer orifice by the minute cilia which are in constant outward motion. Any microbes entering the nose are likewise expelled ; and, in addition to this mechanical expulsion, the nasal mucus which by nature is germicidal destroys a large number of bacteria. But, with the amount of dust we inhale and the adulterated

62 Cf. *Śivasaṃhitā*, III, 22f. ; *Yogabhāskara* quoted in *Yogacintāmaṇi*, II, 1 ; *Gheraṇḍasaṃhitā*, V, 52 ; and the yoga *Upaniṣads*.

63 Cf. *Prolongation of Life*, by Dr. E. Mayer, p. 16.

IMPORTANCE OF NASAL CLEANSING

food and poisonous drinks we are daily swallowing, clogging throughout biophysical mechanism is unavoidable. The nasal passage accordingly suffers from dust accumulation and stuffing. Handkerchiefs cannot remove all the dust and mucus accumulated, especially when one sleeps on one side and the refuse begins to encrust in the nare of the other side which during the period remains blocked. The slightest variation in the usual amount of air inhaled, as a result of morbid accumulation in the nasal canal, impairs the natural freedom in breathing and this, in turn, produces deleterious effects upon the composition and quality of blood cells and also upon circulation itself, besides causing functional disturbances in the circulatory, digestive, nervous and other systems. The cumulative effect is the lowering of the vital index.

To begin with any anti-toxic treatment (*malasuddhi*) at this stage, it is necessary first to remove the cause where the clogging originated. Evidently the nostrils, therefore, need the cleansing before other organs are treated. Again, the closure of one nostril, now becoming so common among the adults, brings on premature old age by constant rarefaction of the air and thus by suction overfills the blood vessels. Physiologic Yoga contends that the closure of one nostril reacts unfavourably on the energy cycle of an individual because the harmony

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between the solar (*pingalā*) and lunar (*iḍā*) electromagnetic currents remains disturbed. It also affects temperature, pulse and therefore the curve of health, and detracts much from thinking and concentration. This condition, however, could be most certainly and easily avoided by timely and daily care of the nasal organs.

VARIOUS METHODS OF NASAL CLEANSING

From what has been stated above, it should be abundantly clear how indispensable is a healthy nose to our physical well-being. The cleansing of the nostrils has for suchlike reasons been considered most essential by the practical yogins. To keep this organ in a healthy state, the one condition which is absolutely necessary is that the nostrils must be fully open for the passage of air. For this purpose, the method suggested by the yoga hygiene is very simple and is known as the process of *neti* or nasal cleansing. To meet the requirements of all cases, it is subdivided into three distinct modes : (i) *jalaneti* or the water-snuffing similar to the ordinary nasal douche ; (ii) *sūtraneti*, also termed *sāmānyaneti* or the threading of the air-passages with semi-stiff twine and mop ; and (iii) *gharṣāṇaneti* or the dilation, friction and rubbing of the nostrils with a flexible probe.⁶⁴

⁶⁴ Another method traditionally taught to the yoga students but not disclosed in the texts is termed *yugalaneti* which consists in cleansing the two nares and the accessory sinuses in a single process. Cf. *Yoga-kauṣṭubha*, p. 243 (Guj.) ; *Yogakalpādrumāḥ*, p. 145 (Hin.).

JALANETI

The practice of nasal cleansing known as jalaneti is again threefold and differs largely in its technique and its hygienic and therapeutic benefits. (a) The first is the simple ordinary yoga nasal douche, also termed *vyutkrama kapālabhāti*,⁶⁵ which consists of water-snuffing through one nostril alternately or alternatively both the nostrils and then expelling the same through the mouth—it is immaterial if some water escapes through the nose. (b) The second is the *vyutkrama kapālabhāti* in reverse, called *śītkrama kapālabhāti*, wherein the water sucked through the mouth is thrown out through both the nostrils. (c) The third is the siphonic water-snuffing perfected by the adepts known as *siddha jalaneti*. It consists in snuffing the water through only one nostril at a time and, without allowing it to pass on to the mouth, discharging the same through the other nostril and repeated alternately.⁶⁶

(a) *Water-snuffing* : The ordinary jalaneti of the *vyutkrama* type is non-injurious, non-irritating and absolutely simple. The beginners in Yoga—and, for that matter, even the laymen—could practice this yoga nasal douche not only without

⁶⁵ Departing from the traditional classification of neti, jalaneti has been referred to as *vyutkrama kapālabhāti* in *Gheraṇḍasāṃhitā*, I, 58ff., may be due to its secondary effects on the air sinuses. *Śītkrama kapālabhāti* is not generally encouraged.

⁶⁶ Known only through tradition, the technique of this method is to be found only in a single reference in *Haṭharatnākara* (MS.) p. 19.

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any misgiving but with positive benefits. So, just when you wash your teeth and mouth, both in the morning and in the evening, do not forget to cleanse your nose also with cold or tepid water as may be found convenient. Take a glassful of water—nearly half a pint—and put in half a tea-spoonful of table-salt. Stir it up properly and pour some (about an ounce) in your inverted palm, and inhale the same as in suction through one nostril at a time, Refer to FIG. 4. If tilting the head to one side for snuffing water by dipping one nostril is found unsatisfactory, the other nostril may even be closed with the thumb of the other hand. Use each palm alternately for the respective nostril. The snuffed water will flow out either through the same nostril or the other, or both ; or, what is more likely, it may drain down through the mouth. Repeat this snuffing process twice alternately through each nostril. During cold or other nasal ailments, however, the practice may be repeated two or three times a day. Soon after the jalaneti, remember to blow your nose of all watery discharge, taking care to close only one nostril at a time.

As previously observed, the intricate air-passages often become filled with secretions, and these with dirt and other deposits clog and poison the system and permanently injure the tissues to which they cling. It is, therefore, not only logical but hygienically necessary that they be washed away. In fact, jalaneti loosens the clogged up mucus

JALANETI

and dirt that may have accumulated and hardened in the air-passages and which often act as nasal obstruction to the free and full respiration and finally lead to a number of diseases.⁶⁷

It is encouraging to note that lately even the Life Assurance Companies have come to realize the need and value of water-snuffing, especially during epidemics such as influenza, diphtheria, meningitis, infantile paralysis and such other infectious diseases that attack through the mouth, nose and throat.⁶⁸ Accordingly, in the notices and pamphlets issued by them to their clients, they emphasize that, during such epidemics as cited above, nasal cleansing through antiseptic water-snuffing—which also automatically serves the purpose of gargling the throat—is the only best and effective preventive against the disease-danger.

In effect, the yoga nasal douche stimulates the tiny nerves and the tender mucous membrane in the nostrils as also the many folds and narrow passages of the nasal surface that warm the air as it passes over them. Further, it directly aids

67 We are assured that "Far more important are obstructions in the naso-pharyngeal passages, especially adenoid growth and hypertrophied tonsils. These in themselves, favourable soil for the tubercle bacillus, by their interference with free respiration prevent the development of the lungs, contributing to frequently recurring colds and chronic catarrh." *Medical Diagnosis*, by Dr. C. L. Greene, p. 128.

68 These diseases originating through mouth, nose and throat infections have been enumerated by Susruta. Cf. *Susrutasamhitā*, nidānasthāna, XVI, 40ff.

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in supplying the necessary moisture to the extent of two-thirds saturation and maintains moist mucous membrane—especially in tropical weather—so useful in catching dust. By this, the filtration of the air, to be sure, is greatly improved and the respiration becomes easy, rhythmic and health-giving; and the breath entering in abundance through the clean nasal passages cools the brain and calms the nervous system. The claim of the yogins that through nasal cleansing⁶⁹ vision is improved and the diseases arising out of nasal obstruction are cured is amply supported and generally acknowledged by the research students of the modern medical science.

Lindlahr, an authority on Natural Therapeutics, has placed water-snuffing, above all preventive methods in hygiene and has therefore included it in his daily regimen. He remarks that "Water sniffing is an excellent means for cleansing the nasal passages of all obstruction. It is the best treatment for catarrh and a splendid natural stimulant to the membranes and nerve endings in the nasal passages. Through the stimulation of these nerve endings it has a tonic effect upon the brain and the nervous system."⁷⁰

⁶⁹ This refers to the lower, middle and upper neti for cleansing the three different routes within the nasal passage, viz., (i) concha nesalis inferior, (ii) concha nesalis media, and (iii) concha nesalis superior. For scientific details, refer to Twenty-third year Annual Report of the Institute (1942).

⁷⁰ Cf. *Natural Therapeutics*, Vol. II, by Henry Lindlahr, M.D. p. 18.

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An objection, however, has been raised by certain authorities against the regular use of water-snuffing on the ground that the mucous membrane of the nose is intolerant of watery solutions, and a chronic congested condition or even infection of air-cavities in the skull can be brought about by the constant use of sprays and douches. This, of course, is possible only so long as the nasal cavities have not become cold-proof; but, no sooner the membranes are gradually tempered and become hardened by constant practice than there is no further fear on this account. On the contrary, we are informed by a large number of other authorities that, in order to avoid catching cold, it is needful to make not only the body resistant to the influence of cold but also the nasal passages. This acclimatization could be effectively achieved only through tepid (85° to 92° F.) to cold bath (32° to 70° F.) and cool (60° to 75° F.) water-snuffing. In the beginning, it is always safe to use warm water.

While speaking of jalaneti of the vyutkrāma type, it may be pointed out that in treating the sick and sensitized cases, such mechano-yoga appliance as very nearly correspond to the technique of the original practice, e.g., a nasal siphon, a nasal douche or a spray, a funnel and tube and similar devices could be easily substituted with advantage.

(b) *Reverse Process of Water-snuffing* : The śitkrāma mode of nasal cleansing is rather difficult of practice

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for those who are not accustomed to the ordinary *jalaneti*. The technique consists in taking a mouthful of water and then closing the lips tightly so as not to allow the water to flow out of the mouth, and, having thus retained it in the mouth in expelling the same through the nostrils.⁷¹ The best way is to take in a deep breath while the water is still in the mouth. Then bend the head downward, let the water collect in the upper cavities, now tilt slightly upward again and with the effort of exhalation push the same slowly out through the nasal passages by that reverse action as is experienced during the act of sneezing. Or, with the water still in the mouth, touch the tender membrane in the nose with a light feather, previously washed with soap and thoroughly disinfected, or with a thin piece of muslin twisted up into a form of thin pointed cord, and thus produce the necessary sneezing to enable the water to spout from the nostrils. This tickling of the "signal surface"—as the nasal mucous membrane is called—usually succeeds in producing the necessary and forceful reflex action; and this reverse nasal irrigation, in course of time, becomes easy and voluntary.

The special feature of this method is that its vigorous action successfully expels any object

71 Identically the same processes as the *vyutkrama* and *śitkrama* *kapālabhātis*, except for standing in neck-deep water (*kaṇṭhamagre jale sthitvā*), have been described as a single practice termed *mālāṅginimudrā* (the elephantine squirting) at another place in *Gheraṇḍasāṃhitā*, III, 88, 89ff.

ALLIED CURATIVE PROCESSES

in the form of dust or waste and dried mucus that may still be adhering to the cavities more completely than is possible through the usual method of water-snuffing. Specially the stuff which has been previously loosened but which has not altogether left the nasal passages yet needs very strong action for its removal; and the process of *śītkrama kapālabhāti* is evidently the only best *natural* means for this purpose.

(c) *Siddha Jalāneti* : After normal exhalation, dip both the nostrils in a glassful of saline water; then close the passages of the throat with the aid of *jālandhara bandha* and begin to snuff the liquid. After the nares have been completely filled, tilt the nose to the right and carefully move away the left nostril from the glass without letting in any air. If the technique is successfully executed, the water will run through the other nostril automatically just like a siphon. Repeat this alternately. When changing the nostril, close the nose with the fingers and only after dipping one nostril in water, open the other. We commend firsthand technical guidance of an authorized teacher before this practice is undertaken.

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The other two principal methods of nasal cleansing known as *sāmānyāneti* and *gharṣaṇāneti* previously defined should be practised only under personal supervision of the practical yogin inasmuch as they involve complicated operation that cannot

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be easily or satisfactorily followed by mere book-reading or secondhand verbal instructions. And, what is worse, they may even lead to an injury of any part of the nasal passage, if one is not properly guided. However, this should not in the least be taken to imply that these practices are in any sense dangerous or even less important. On the contrary, they represent the best and the most adequate form of nasal cleansing so far investigated in natural science. But, being difficult of execution, even indeed while they form the daily duties of the practical yogin, their technique has to be omitted here for the reason that they could not be conveniently included in the normal hygienic duties of a modern layman.⁷²

The X-ray investigations and clinical data compiled by The Yoga Institute for the past four decades fully justify the use of neti or yoga nasal hygiene in the case of nasal obstructions, affections of the sinuses, and optic ailments due to congestion of the lacrimal passages. Legzdins reports how in Riga, most members of The Yoga Institute numbering about fifty successfully forestalled, year after year, the attacks of the most prevalent endemic diseases of coryza and rhinitis during the slushy and foggy winter of northern Europe, just by practising saline jala-neti twice a day.

⁷² The therapeutic value of these practices far exceeds their usual hygienic importance, according to the Hathayoga authorities; and their elaboration has, therefore, been reserved for the succeeding volumes of this series.

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Further, it may not be out of place here to record the recent investigations of a similar nature conducted by a French medical authority which only confirms the true value and scientific import of the various types of neti known to the yogins thousands of years ago. Thus, the dilatation of the nasal passages by passing from nostrils to the throat a succession of probes of gradually increasing dimensions as an effective cure for deafness, headache, asthma and snoring etc. was hailed by the French Academy of Medicine as a marvellous research; and its inventor—in fact, imitator of Hathayoga—computes that about seventy per cent of the people in this world stand in need of this method.⁷³

It may be stated that cases of headache, both in their chronic and acute forms, hemicrania, bronchial affections, asthma and other diseases resulting from nasal obstruction yield to the above yoga treatment in a very short period.⁷⁴ There are even a few cases on record where through the practice of neti normal sight has been restored and the enlargement of tonsils permanently cured.

YOGA NASAL HYGIENE

The following table indicates the usual time required for the practice of jalaneti and the

73 Cf. *Madras Mail*, 17th March 1928, p. 3.

74 Reference may be made to the outstanding clinical records at the Institute Vr. 37, Bom. 536, 599, 612, Am. 713 etc., Stc. 835, 856, 857, 862 and many others. Cf. *Yoga*, Vol. IV and V; also the Annual Reports of The Yoga Institute.

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frequency with which the same should be attended. The water-snuffing should be done thrice *at the most* each time to obtain the best results. The reverse process of *śītkrama*, however, should always be preceded by the former and need not be indulged in more than once a week—usually in the morning.

ORGAN	YOGA METHOD	FREQUENCY	TIME
The Nose	<i>Vyutkrama jalaṇeti</i>	Morning and Evening	2 mnts.
” ”	<i>Śītkrama jalaṇeti</i>	Morning only	2 mnts.

CHAPTER V

CARE OF THE EYE

The practice of *trāṭaka* or central fixation strengthens the optic nerves, cures the diseases of the eye, and removes laziness.

Haṭhayogapradīpikā with *Jyotsnā*, II, 32.

THE eye is a very susceptible and delicate organ. It is also very intimately correlated with the whole of animal economy. For example, if there is a deficient blood supply or nervous exhaustion, if the glandular secretions are abnormal, in fact, if there is any serious functional or organic change in the body, the eyes generally participate in the evil consequences. Thus, a dark hue of the skin under the lids—the so-called “rings around the eyes”—is quite indicative of bad blood circulation or of changes in the composition of the blood itself. Similarly, puffiness or swelling of the lids, the popularly known “bags under the eyes”—notwithstanding the frank admission by the *Journal of the American Medical Association* (1951) that “no one knows the exact cause of this condition”—is often an early symptom of an approaching disease of the heart or kidney, anemia or malnutrition.

Just as the eye suffers due to constitutional disorders, so does the general health of the body

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become impaired due to visual defects. We are informed by eminent medical authorities that "the reflex evils from the eyestrain are great and numerous and are often incorrectly ascribed to entirely different causes. Headaches, nausea, and dizziness are especially the frequent results of eyestrain".⁷⁵ Errors of refraction and functional defects of vision are mostly caused by strain of the ocular muscles. Bates is even of the opinion that such strain may not necessarily be physical since mental strain through confusion of vision or hypnosis also leads to such visual defects as myopia, hypermetropia and such other diseases.

Having realized the close relationship between mind and vision, practical Yoga lays great stress on the care of the eye for personal and mental hygiene, the former through eye exercises and the latter through relaxation and concentration. Fortunately, these facts are now getting acknowledged by the leading ophthalmologists and psychoanalysts of the West.⁷⁶

What is yet not known to many, even though science has lately demonstrated it, is that nearly fifty per cent of the bionergy (*prāṇa*) of an individual required for all physiologic activities such as digestion, respiration, elimination etc., when at rest, is consumed by the activities of the eye, i.e.,

⁷⁵ Cf. *How to Live*, by Drs. Fisk and Fisher, p. 111.

⁷⁶ Cf. *New York Medical Journal*, July 1911, August 1913 and May 1915. Also *Perfect Sight Without Glasses*, by W.H. Bates, M.D.; *My Mind's Eye*, by Fredrick Marion.

THE REAL EYE

vision. It is, therefore, not without good and scientific reason that Yoga emphasizes silence, closure of the eyes and concentration, with a view to conserving bionergy.

THE REAL EYE

Macfadden maintains that the real eye is to be found in the optic nervous system and not in the eyeball which is merely the terminus of the system subordinate to the vital organism behind it. He observes, in support of his argument, that "The mechanical rather than organic character of the eyeball is demonstrated by the fact that, if impaired, or if parts of it, even, are destroyed, the loss can be repaired by the aid of substitution of artificial contrivances of glass, while, if the optic nerve is impaired, the only remedy possible is the restoration of its powers, and if it is destroyed, no substitute for it can be found."⁷⁷

Health of the eye, therefore, depends largely upon perfect nutrition, elimination and normal muscular tone and nerve supply. If any one of these is lacking, there is very little chance of receiving real physiologic benefit from the mere practice of ocular hygiene for the hygiene of the eye is principally constitutional. Pyle remarks that "Those measures and modes of life which are conducive to general health and vigour will be beneficial in maintaining ocular health and vitality.

⁷⁷ Cf. *Encyclopedia of Physical Culture*, by Bernarr Macfadden, p. 2811.

CARE OF THE EYE

Persons who seek to preserve their vision all through life must not only observe the laws of ocular hygiene but also those of general physical and mental hygiene."⁷⁸

Although care of the eye must begin, in the first place, with constitutional build-up and regeneration, the ancient yogins have formulated a specific course of ocular hygiene for training of the eye with a view to maintaining perfect vision so essential to the study of higher Yoga. In fact, what was suggested by the scientific yogins thousands of years ago is now being incorporated in one form or another in the modern hygiene of the eye consisting mainly of a set of exercises, sun bath, massage, washing, palming and such other methods as relaxation etc.

EYESTRAIN

One of the organs so commonly misused or unnecessarily strained in modern life is the eye. This is largely due to the eye being constantly focussed at a short distance either for a long period or in a wrong way. The cure for all such reflex evils arising out of such an eyestrain or from errors of refraction is quite simple and consists in either closing the eyes frequently or in focussing the eye at a long distance, e.g., the horizon. These alternatives may be practised for a few minutes, say about five to ten minutes, and repeated after an interval of every few hours. It helps to

⁷⁸ Cf. *A Manual of Personal Hygiene*, by Dr. W. L. Pyle, p. 258.

THE SUN AND MOON GAZING

relieve the strain and offers intermittent periods of relaxation to the strained muscles of the eye.⁷⁹ The yogins, however, suggest that gazing at the sun, the moon and the stars is far more useful for the development of perfect vision and also the health of the eye than mere looking at the horizon. This is now confirmed through experiments conducted by Bates, Helmholtz and others who regard brilliant light or object as an eye tonic. It is truism that just as air contributes to the health of the lungs so does light contribute to the health of the eye. In Yoga, light is attributed with greater significance than mere ocular hygiene, and vision is fully exploited for the purpose of concentration.

THE SUN AND MOON GAZING

Thus, the sun worship of ancient India, even though a religious tradition, was appreciated and inherited by Yoga as an accessory to hygienic and meditative practices. It is a known fact that the sun rays are both stimulating and curative and their effects on the eye are very healthful first because they vitalize vision by accelerating circulation and secondly because they neutralize infections by destroying the microbes.

Most yoga practices are performed in open, and for this purpose the student faces the sun in the early morning for nearly an hour and similarly in the evening for a like period. Besides this exposure of the body to the sun, the more direct

79 Cf. *Conservation of Vision and Ocular Hygiene*, p. 21.

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method of contact between the eye and the sun is gazing. In Yoga, this much-favoured practice of sun-gazing is known as *sūryadhyāna*, and the moon-gazing as *candradhyāna*; and both are distinguished as *sthūla* or gross forms of concentration.⁸⁰ Of these, the sun-gazing is regarded as relatively more important. It consists in looking at the sun when not covered over by clouds with the eyes wide open but relaxed—not staring with strain—as long as possible or alternately till the tears come into the eyes.⁸¹

Evidently, this exercise as an eye tonic seems to have been based upon the most remarkable discovery that the rays of the sun have not only hygienic but also therapeutic effects upon the eyes.⁸² No light can equal the intensity of the sun rays; and the sunlight, far from being harmful, is the most healthful thing for the eyes. The best time for gazing is the early morning (7 to 8 a.m.) or late afternoon (5 to 6 p.m.), especially the time of sunrise and sunset. Persons with defective or weak eyes should start by looking *in* the direction of the sun—instead of looking straight *at* the sun—

80 The author of *Yogakaustubha* (p. 316) classifies them as *piṇḍastha dhyāna*, a term generally belonging to the Jaina Yoga. Cf. *Yogaśāstra*, by Hemacandra, VII, 8.

81 Cf. *Yogakalpadrumaḥ*, p. 201.

82 This claim of the ancient yogins has been fully corroborated by recent scientific experiments conducted by leading ophthalmologists. Cf. *Strengthening the Eyes*, by Bernarr Macfadden; *Perfect Sight Without Glasses*, by W. H. Bates; and *Psycho-solar Treatment for the Eye*, by R. S. Agarwal.

THE SUN AND MOON GAZING

until they are able to look directly at the sun without discomfort or pain. No attempt, however, should be made to outstare the noonday sun as the glare causes irritation, and such a practice may thus lead to more harm than good.⁸³ Again, gazing at the sun should be practised gradually, that is, only a minute or two in the beginning to about ten minutes at the most. Of course, by practice, one can gaze at the sun even for half an hour or more, but five to ten minutes of practice is generally sufficient for hygienic purposes.

The yogins claim that, if followed faithfully and with due care, the practice of sun-gazing leads to a considerable improvement in sight when even the smallest particle becomes clearly visible. Its curative effects are also very far-reaching and deserve special attention. Both in the East and the West, sun-treatment is now being successfully employed for the inflammation of the eye, trachoma, styes, astigmatism, myopia, hypermetropia and presbyopia.

The moon and the star gazing is simple and involves no risk. It can be practised when the

⁸³ Either curiosity or enthusiasm has led many to attempt certain yoga practices with scant regard to the precautionary measures recommended resulting in physical or mental injury to themselves. Such irresponsible experiments, in turn, have brought practical Yoga into disrepute especially among the modern scientists and research students. It is no fault of Yoga ; but the public are at times so scared of the subject that even the most simple yoga practices are considered dangerous. This emphasis, therefore, is really not without foundation, and it is hoped that all precautions appearing in this work will be strictly observed.

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nights are clear by focussing the eye on the moon or the star as convenient, taking care to see that the body is protected against cold or chill when in the open during the night. To avoid strain both to the eye and the neck, gazing should be undertaken only when the objects are at about forty-five degree angle, or even less.

EYE EXERCISES

The ordinary use of the eye generally tends to exercise the eye muscles unequally. This causes eyestrain because certain set of muscles, are over-used at the cost of certain other muscles and become weakened. This weariness from over-use or from uncorrected defect in focus of the eye detracts much from normal accommodation, and the less-used muscles suffer through lack of proper exercise. This has to be corrected by regular and systematic practice of eye exercises providing for coördinated development of the focussing habit of the eye muscles.

Trāṭaka or central fixation—in yoga terminology, rightly described as the process for the purification of the eyes—consists in fixing the eyes on a particular object either far or near, more preferably a minute one, with the eyes normally open but without the least blinking, till the tears begin to flow.⁸⁴ Although not so detailed in the practical yoga texts, it has been given to understand by way of

⁸⁴ Cf. *Yogasandhyā*, p. 73, Bombay, s. 1834; *Gheraṇḍasāṃhitā*, I, 53; *Haṭhayogasāṃhitā*, V, 42f.; *Yogamārgapratāṭikā*, III, 26.

EYE EXERCISES

personal instructions imparted by the practical teacher to the beginner in Yoga that, for the practice of trāṭaka, one should use either a wick-lamp produced from clarified butter (*ghee*) or, if that is not available, a simple candle-light without a glass. The distance between the object and the eye should be so adjusted as to suit the requirements of an individual but in no case should it be less than sixteen and more than twenty inches. The posture recommended for all such practices is a meditative one,⁸⁵ especially *siddhāsana* or the Perfect-pose. But those who have no postural training may begin comfortably with *sukhāsana* or the Easy-pose as illustrated in FIG. 5. For those, however, who are unable to follow any meditative postures, the use of a chair for sitting and a table for resting the light may be improvised. What is important is that the body should be held erect and the spine straight. Then keep the eyes centrally focussed on the tip of the flame—with a view to reducing the area of central fixation because the smaller the area, the better the fixation.

After a few months of practice in central fixation on light, one may use pure water for gazing. It may be either a small surface of water or an expanse like that of the sea. Gaze on the centre of reflection produced by normal light, or for indoor practice, use artificial light. The latter can be easily improvised by having a broad plate filled with

85 Cf. *Simple Meditative Postures*, by Shri Yogendra ; *Yoga*, Vols. I, II, III and IV.

CARE OF THE EYE

water so placed at such distance and angle as to focus the reflection in the centre of the plate ; and, it is on this shiny surface that gazing should be fixed.

The central fixation on water-light combination with the preponderance of water (*ap*) and fire (*agni*) elements is regarded as very soothing to the eyes—provided the light reflected is not unusually strong—and is further supposed to produce sedative effect on the nervous system. Irrespective of this claim, however, the main object of such *trāṭaka* is to offer for gazing the various elements of Nature such as water, light, sky etc., and thus to train and to let the eye be accustomed to their varied influences on the optic nerves. This water-light gazing is best performed in a corner of a room providing for a steady and near-perfect reflection so essential to proper fixation.

Certain processes of *dhyāna*—really, concentration through *trāṭaka*—as disclosed by Jaigīśavya in his *Dhārṇāśāstra* are also very healthful for eye exercises affecting both vision and mind.⁸⁶ The higher practices like *sāmbhavīmudrā* and *antardṛṣṭi*, possibly adopted from the older traditions or texts and elaborated in the Haṭhayoga treatises, while they represent the most precise and efficient means of maximum training of the eye, are unsuited to the beginners not interested in specialized organic control. For the general strengthening of the eye,

86 For study of concentration through *trāṭaka*, refer *Yoga*, Vol. V, 1, 2ff.

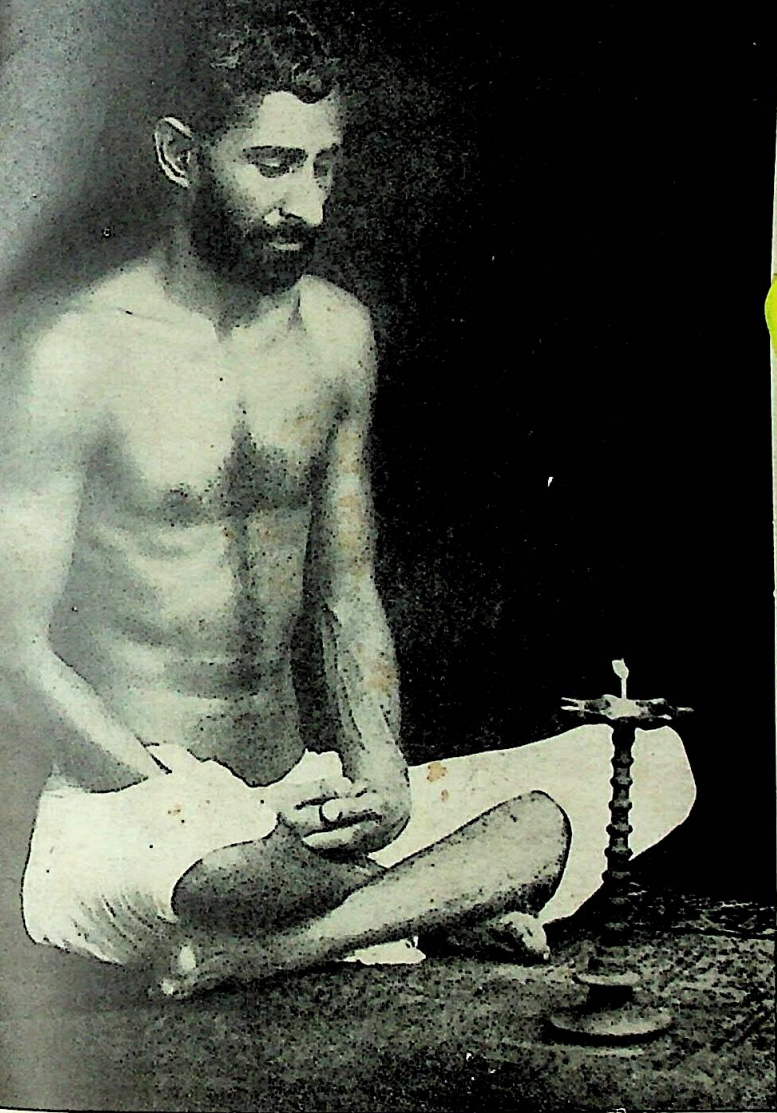


FIG. 5

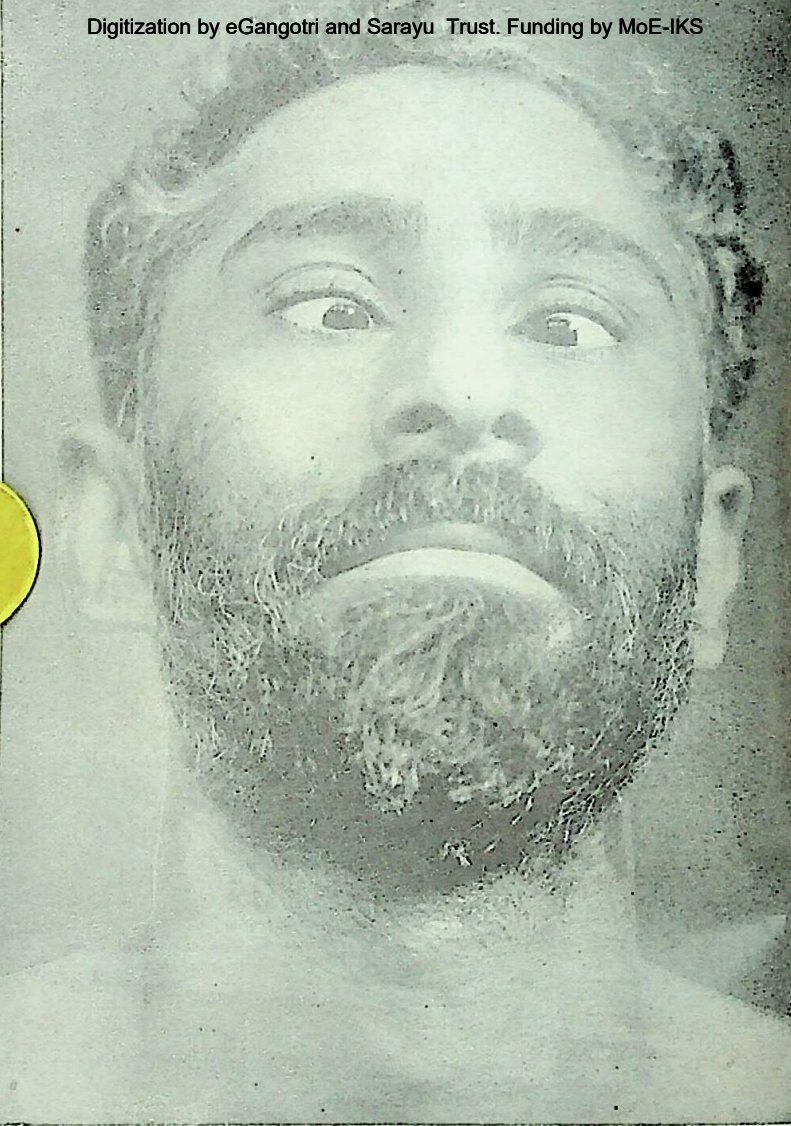


FIG. 6

EYE EXERCISES

however, the following four exercises will suffice the need of ocular hygiene :

(a) *The Nasal Gaze* : Assume any comfortable relaxed posture with the body and the neck held erect, and fix the eyes on the tip of the nose. Continue to gaze for one or two minutes and then close the eyes. Repeat a few times, before closing the eyes for rest interval. This process is termed *nāsikāgra trāṭaka* or the gazing on tip of the nose.⁸⁷ Refer to FIG. 6.

(b) *The Eyebrow Gaze* : After a rest of about a minute, focus the eyes on the space between the eyebrows. Keep this up for a period of a minute or two. Again close the eyes for rest. This process is termed *bhrūmadhya trāṭaka* or the gazing on space between the eyebrows. Refer to FIG. 7.

(c) *The Right-Shoulder Gaze* : Keeping the body erect, the neck straight and the head steady, fix the eyes on end of your right shoulder. Maintain this for a minute or two and then close the eyes for rest. This may be termed *dakṣiṇajatru trāṭaka* or the gazing on end of the right collar bone.

(d) *The Left-Shoulder Gaze* : Finally, maintaining the previous position of the body, fix the eyes on end of your left shoulder. Keep this up for a

87 These names have been assigned by the author for the purpose of distinguishing one mode of gazing from the other. The first two form a part of certain other practices of Yoga, but no specific terms have been used by the authorities, e. g., the technique of nasal gaze is described in *Bhagavadgītā*, VI, 13. Cf. *Yoga*, Vol. III.

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period of a minute or two and then close the eyes for rest. This exercise may be termed *vāmajātru trāṭaka* or the gazing on end of the left collar bone.

All the above eye exercises may be practised either separately or in combinations. For example, the first two can be combined in a dynamic whole by alternate movements following each other first on the tip of the nose and then on the space between the eyebrows. Similarly, the eyes may be focussed alternately first on end of the right collar bone and then on the left. It is also healthful to combine all the four movements in one, remembering to alternate both the movements and their sequence.

The special value of these eye exercises lies in training and strengthening of those muscles which generally control the eyeballs—especially the four sets of muscles which pull the eyeballs upward, downward, to the right and to the left. As such, they help to secure proper fixation and accommodation lack of which leads to the defects of vision and diseases of the eye requiring the use of glasses.⁸⁸

88 Apart from those attending the clinic of the Institute, many others who have merely read and practiced these exercises have also succeeded in improving their vision permanently. Here is a typical case report by Mr. Hugo G. D. Irwin of the United Kingdom : "My own particular interest lay in the chapter on the *Care of the Eye*. By exercising for only a few weeks what was written, I was able to throw away my glasses which I had used for more than ten years since when I have never looked back. Should I ever write my memoirs on '*My India*', I would like to acknowledge in it the great benefit I have derived from reading it". For similar reports, Cf. *Yoga*, II, p. 61.

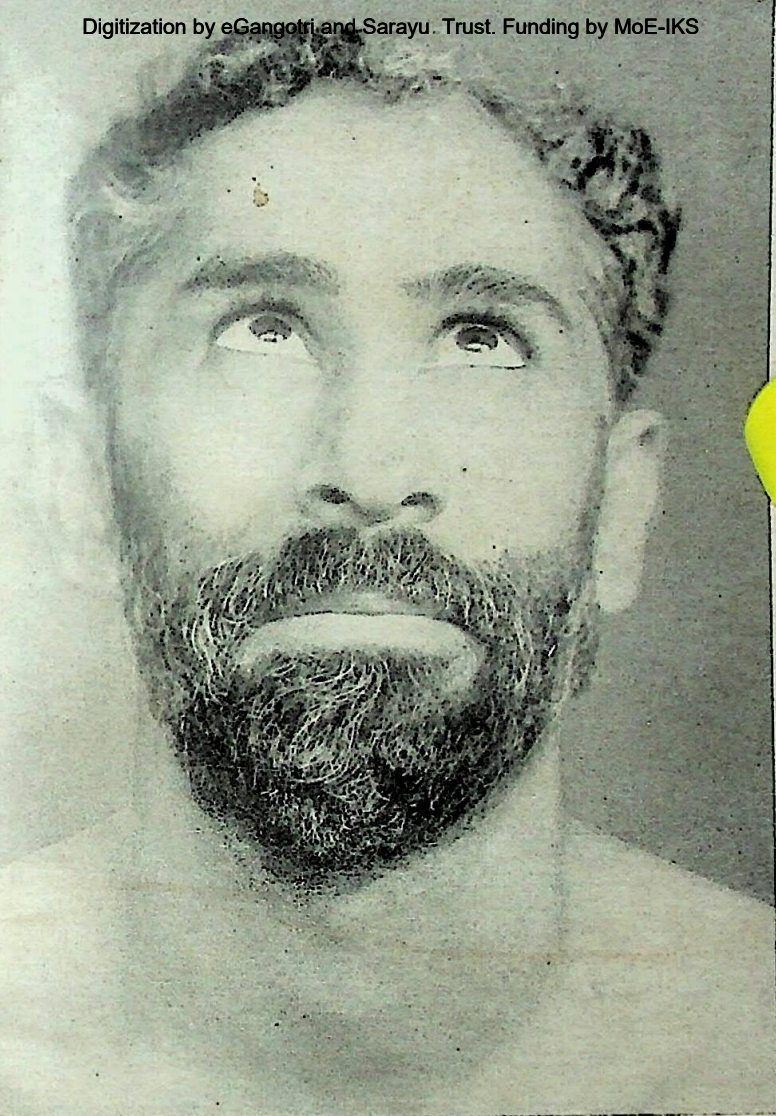


FIG. 7

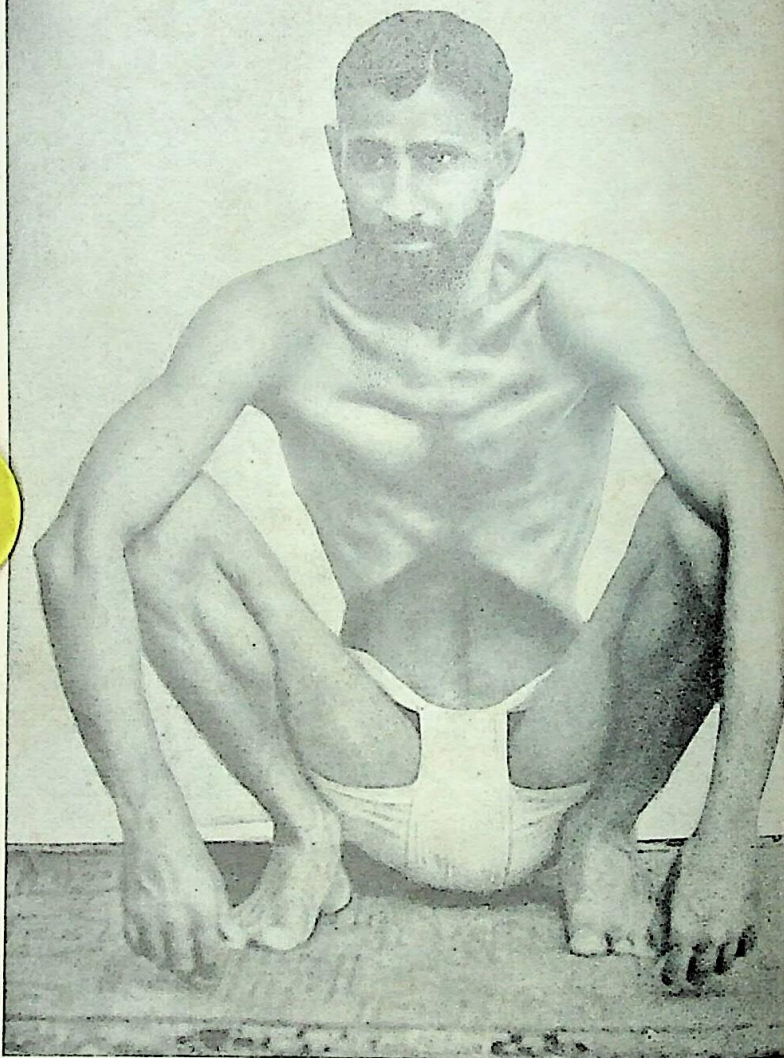


FIG. 10

YOGA OCULAR HYGIENE

EYE MASSAGE

Besides the above yoga exercises, one could supplement many such accessories as the eye massage and eye bath. The stroking, vibrating, pressing, palming and light kneading of the eye have a decided tonic influence on the blood circulation and on the nerves and nerve endings. Such movements may also be applied to the eye, although they do not form a part of any process in Yoga.

EYE BATH

The use of cold water in bathing the eye is essential to giving that organ the necessary tone and stimulation. A few minutes after the trāṭaka exercises, it is invigorating either to dip the eyes in cold water for three to four times or to splash water—by taking water in the hollow of the palms and then throwing the same—in the open eyes for a few times. This vigorous contact of water with the open eyes has the same healthy effect on the circulation of the blood, lymph and end organs as the massage so widely recommended for the treatment of the eye. For it reflexly stirs up the pathogenetic deposits in the tissues and squeezes them out, as it were, into the lymphatic and venous circulation, thus offering greater opportunity for a free inflow of pure blood.

YOGA OCULAR HYGIENE

The following table indicates tentatively—of course, taking into account the average requirements

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of ocular hygiene—the usual course one should follow to keep the eyes in normal good health. The sun and moon gazing need not be included in the daily regimen because the same may be conveniently adjusted to individual constitution and need. If the time suggested is beyond one's capacity, it may be proportionately reduced in the initial stages and increased later.

ORGAN	YOGA METHOD	FREQUENCY	TIME
The Eye	<i>Trāṭaka</i> (with water)	Evening only	3 mnts.
"	" (" light)	" "	2 mnts.
"	<i>Nāsikāgra trāṭaka</i>	Morning "	1 mnt.
"	<i>Bhrūmadhya</i> "	" "	1 mnt.
"	<i>Dakṣiṇajatru</i> "	" "	1 mnt.
"	<i>Vāmajatru</i> "	" "	1 mnt.
"	<i>Candradhyāna</i> "	Once a week	5 mnts.
"	<i>Sūryadhyāna</i> "	" "	5 mnts.

CHAPTER VI

CARE OF THE DIGESTIVE ORGANS

He who practises *dhouti* or autolavage gains health, strength and cheerfulness.

Gheraṇḍasāṃhitā, I, 41.

COMPARATIVELY, very few persons are aware that the food—which enters by the mouth and leaves by the anus—has to travel a distance of about ten yards through a muscular tube called the alimentary canal. This journey, however, is not so easy as one supposes for the canal is not like the ordinary water pipe or even a rubber hose but is absolutely muscular and thus tightly grasps the objects passing through it before they are pushed forward by automatic muscular movements. It has been observed that this food tube is an independent and intelligent unit ever performing its functions faithfully, even after all the nerves connecting the intestine with the brain had been severed.

There are twenty-one digestive organs in man, see FIG. 8, directly or indirectly connected with the alimentary canal. Thus anything after it has been put into the mouth passes through the tube called (1) *œsophagus* and reaches the pouch (2) known as the stomach from whence it is pushed

CARE OF THE DIGESTIVE ORGANS

forward through its pyloric end (3) into the duodenum (4). Here it enters the (5) and (6) convolutions of the small intestines and after the main portion of absorption has been gone through,

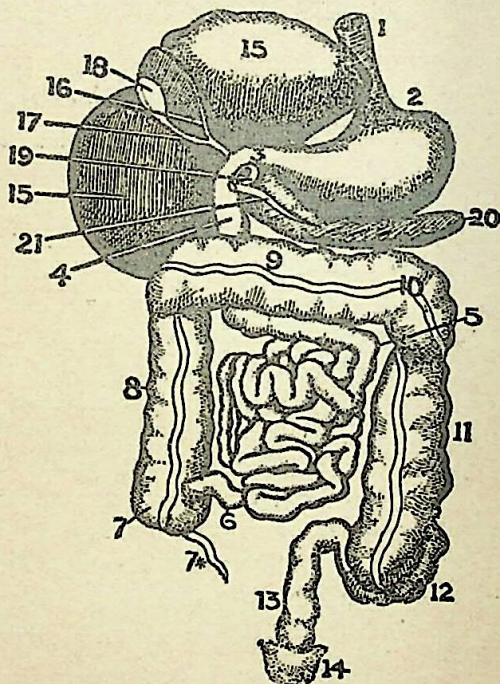


Fig. 8
The Digestive Organs of man

it is pressed forward into another small pouch called (7) the cæcum which has a tiny vermiform appendage (7*). The waste material which has now no further use is rushed through (8) the ascend-

FOUR APARTMENTS

ing colon and (9) the transverse colon, and passing the point (10) called Keith's Node, the seat of reverse peristalsis, enters the descending colon (11). Here it makes rapid progress; and after it has left the last gate of sigmoid flexure (12) and pushed into the pelvic colon (13), it is finally disposed off from the canal through the anus (14), the posterior opening of the alimentary canal through which the excrements are expelled.

Among the other accessory digestive organs may be mentioned (15) the liver, (16) the hepatic duct which carries the bile from the liver to the cystic and common bile duct, (17) the cystic duct, (18) the little gall bladder where bile is stored until needed and eventually discharged through (19) the common bile duct, and (20) the funny shaped pancreas which secretes a juice most important in the chemistry of digestion with its little duct called (21) the pancreatic duct.

FOUR APARTMENTS

The food tube may be considered as divided into four interdependent apartments, in each of which the food is retained for a time to undergo certain biochemical changes which are not only essential to the digestive process but are also positively necessary to prepare the way for the next succeeding series of changes that the food must undergo before its nutrients are absorbed—the final disposal of the waste being the last function.

CARE OF THE DIGESTIVE ORGANS

In the first apartment, i.e., the mouth, the food is reduced to a soft pulp and is further mixed with the saliva.

In the second apartment, i.e., the stomach, the soft food-pulp passed by the mouth is mixed with the gastric juice breaking up and reducing the contents to a semi-fluid state.

In the third apartment, i.e., the small intestines, semi-fluid food passed by the stomach is really digested and absorbed.

In the fourth apartment, i.e., the colon or the large intestines, the waste matters pushed forward and emptied by the small intestines are received and discharged from the body.

During transit through this alimentary canal, each morsel of food taken, either in the form of solid or liquid material, is temporarily checked while some special work, as of liquefaction, digestion, assimilation, selection and elimination is being accomplished. Such essential pauses are secured by means of what may be termed "gates". Kellogg, in describing such gates—about ten in all—refers to their specific and varied advantages as also to the many important functions performed by each one of them. He observes that "Many of the most serious disorders of digestion, recent physiological research has shown, are the result of disturbances which occur at the food gates, so that it is a matter of very great practical interest to discover the relation of these gates to healthy digestion, and

THE FIVE FOOD LABORATORIES

to associate the various disturbances which occur in conditions of diseases each with its particular gate."⁸⁹

THE FIVE FOOD LABORATORIES

Out of the twenty-one digestive organs of a man, the most important are the five great food laboratories, viz., (a) the mouth or the mill, (b) the stomach or the mixing plant, (c) the small intestines or the absorbing chamber, (d) the liver or the refinery, and (e) the large intestines called the colon or the waste storage and disposal system.

(a) *The Mouth or the Mill*: The hygiene of the mouth has been treated previously in detail and needs no further emphasis or repetition. The work of the mill, as may be expected, is thorough mastication for the very simple reason that digestion is thus made proportionately easy. It also provides an indirect control over the intake of food—for the more you masticate and enjoy your food, the lesser are the chances of overeating. Besides regulating salivation, it is well to remember further that the only portion of the operation of digestion that can be voluntarily controlled is that which is done in the mouth. On the activities of this mill, therefore, depends largely the health of the alimentary canal, provided the quality of food is wholesome. In effect, if the food is not properly masticated or mixed with the necessary quantity

⁸⁹ For further elaboration, Cf. *The Itinerary of a Breakfast*, by Dr. J. H. Kellogg, p. 39.

CARE OF THE DIGESTIVE ORGANS

of saliva and appetite juice, the work of the other digestive organs suffers.⁹⁰

(b) *The Stomach or the Mixing Plant* : The action of the saliva still continues in the stomach which secretes a strongly acid fluid known as the gastric juice which practically breaks up and liquefies the food. The mixing plant, with the aid of the muscular action of the stomach—the rhythmic and slow wave-like contractions at the rate of three to five waves per minute—thoroughly mingles the gastric juices with the softened food and passes the semi-fluid stuff to the small intestines, through the pylorus, for absorption.

Even though absorption from the stomach is of less importance than was formerly supposed, it is still essential that this organ be kept in a healthy state.⁹¹ First, "The nutritive value of the various foods depends, it must be specially mentioned, *solely and only upon the digestive power of the stomach*, and the capability of the system to assimilate ; it is another

90 Great stress has been laid upon thorough mastication, and the benefits derived therefrom are claimed to be immeasurable by Mr. Horace Fletcher in his *A-B-Z of our Own Nutrition*.

91 Contrary to this opinion, Kellogg maintains that "The work performed by the stomach, while important, can be dispensed with. There are many persons living whose stomachs have been removed and who have good digestions, and enjoy good health." Cf. *The Itinerary of a Breakfast*, p. 28.

Notwithstanding such exceptions, it needs hardly to be pointed out that these short-cuts to health are not only unnatural, expensive and sometimes dangerous, but are also a great drain upon the whole of physiologic economy.

THE FIVE FOOD LABORATORIES

thing than the percentage of nutritive material which the food may contain."⁹² And second, "That the *quantity* of food generally taken is *more* than the wants of the system require, and that such excesses, if persevered in, generally produces not only functional aberrations but diseases of the coats of the stomach."⁹³

(c) *The Small Intestines or the Absorbing Chamber* : The work of transforming or absorbing all digestible food principles into raw blood, through the special absorbents of the intestines called the villi, is really carried out in this absorbing chamber. This laboratory of about twenty-two feet in length, therefore, does the main work of digestion and pushes forward the waste materials into the colon for final disposal.

(d) *The Liver or the Refinery* : It is not generally realized that the digested food materials absorbed and passed on to the blood vessels carrying blood back from the alimentary canal have to be refined and made organically fit before the same can be allowed to be distributed to the tissues of the body by the general blood circulation. The liver, which from an anatomical point of view is simple in structure, is really the busiest laboratory where a great variety of work is undertaken. Although outside of the actual food tube, this refinery is directly connected to it. In regard to the main work

92 Cf. *Neo-Naturopathy*, by Louis Kühne (Gr. Tr.), p. 87.

93 This axiom represents Dr. Beaumont's Observations on Digestion in *The Health Question Box*, p. 885.

CARE OF THE DIGESTIVE ORGANS

carried on by this organ, it may be observed—though surprising—that practically all the food evolutes as raw blood go to this wonderful laboratory after absorption and before entering the general blood circulation.

(e) *The Colon or the Waste Disposal System* : The waste materials from foods and drinks which cease to be of any further use to the body are received in the colon and finally expelled through the anus.

UNIFORMITY OF CAUSES IN DISEASE

Out of the five main organs of digestion as mentioned above, however, the most important and those that need daily care are the stomach and the intestines. Kühne, Hazzard and others, in advancing the uniformity of causes in disease, specifically rely on the data that the digestive organs are largely to be blamed for all kinds of constitutional diseases and pathogenic conditions.⁹⁴ The substance of their text is like this :

“The source of all symptoms of disease is *impure* blood.

“Impure blood is caused by *impaired digestion*.

“Impaired digestion results from:

⁹⁴ “It must continually be borne in mind that the state of the digestive organs is the crux of the whole situation. Therein lies health or illness.” Cf. *Fasting for the Cure of Disease*, by Dr. L. B. Hazzard, p. 184.

UNIFORMITY OF CAUSES IN DISEASE

(a) Taking into the body food wrongly selected in kind or in quantity, wrongly prepared or wrongly masticated ;

(b) Taking into the body food that may have been correctly selected, prepared, and eaten but in quantity greater than is needed for the repair and growth of tissue cells."⁹⁵

Carlson, Allen, Einhorn, Luckhardt and few other believers in rational therapy bring this important issue to a simple conclusion that, through the restoration of a healthy stomach by the starvation or control of hunger, the general tone of the body could surely be improved and many specific diseases like diabetes, rheumatism, gastritis and such others could be effectually cured. Extremists like Carrington, Macfadden and other advocates of fasting as a cure for disease hold that the treatment of the stomach in itself is sufficient to cause radical changes in the body by encouraging synergic reaction in the other organs.

The above statements have been corroborated by a large number of clinical demonstrations; and it is now generally accepted as of old that the treatment of the stomach, viz., fasting and control of hunger, is an essential form of neutralizing certain pathological changes. Further; that systematic fasting within the meaning of a treatment of the stomach can even bring about rejuvenation, in the real sense of the word, has been recently

95 *Ibid*, p. 20ff.

CARE OF THE DIGESTIVE ORGANS

proved by remarkable experiments of Crew—at least in the case of a flat-worm called planarian.

The unitarian doctrine of disease as a disorder of personality—body, mind and spirit—emphasized by the ancient yogins⁹⁶ has only now been partially scrutinized and enriched by the resources of modern scientific research by Nicola Pende, the founder of that contemporary school of medicine called neo-hippocratic. According to this doctrine, hormonal and humoral disturbances and maladjustments give rise to constitutional and correlative antagonisms whether chemical, nervous or psychic. What is produced is a disease—in fact, a disorder of the whole body—owing to an impairment of the vital response of the body itself. “In the normal state of health, this response regulates all the different parts of the body and is put into effect through the humoral system. On this account, man is always a totality and an individual (*sui generis*), and disease is always a disease (*totius substantiae*)”⁹⁷ no matter whether the effects are felt by the body; the mind or the spirit.

RESPONSIBILITIES OF THE STOMACH

Whatever the claims be, a healthy stomach is indeed a great asset to the physical well-being of an individual. What is relevant from the yoga point of view is to know the very best means of keeping this organ clean and of

96 Cf. *Yoga* Vol. V, p. 38f.

97 Cf. *East and West*, Vol. II, 1, pp. 46ff.

RESPONSIBILITIES OF THE STOMACH

maintaining it in its natural healthy state. The alimentary canal, including the important digestive organs—the stomach and the intestines—is heavily lined with mucous membranes and delicate serous coat. Of these, the function of the stomach, besides the gastric secretion, is to prepare the masticated food for its final digestion in the intestines. Just as cleansing of the teeth or the nose is a hygienic necessity, Yoga considers the cleansing of the stomach and the intestines also imperative for keeping those organs in their healthy state.

Each time the food passes through the alimentary canal, it leaves, besides other malformations, a fine coating of waste matter behind. This waste results when the food is not thoroughly digested or eliminated from the system. In due course, it forms a sort of morbid lining throughout the entire canal. If this coating is not washed off at intervals, it interferes with the natural secretions and juices of the digestive organs from freely mixing with the food-fermentations and thus prevents normal physiologic functions. The most natural and common outcome of such morbid coating of the waste matters along the alimentary canal is indigestion, constipation, defective absorption and self-poisoning, known as auto-intoxication. These, in turn, tend to lowered vitality and diminishing power of resistance to disease which generally are the main causes of most diseases. Jamison states that "Nine-tenths of the ills that afflict mankind have their origin in a foul digestive apparatus and a

CARE OF THE DIGESTIVE ORGANS

consequently poisoned body.”⁹⁸ He further observes that “Foodstuffs are prepared for assimilation in the alimentary laboratory through the process of normal fermentation. Is it not essential, therefore, that the connecting canals and receptacles be cleansed of the fermented debris that may remain unused and unexpelled, before more food be taken by the digestive apparatus? The all-important question is :—How soon and how well have the residuary part of the food (for some part will always be undigested and unassimilated), and the waste resulting from the worn-out tissues of the various organs, been eliminated from the system.”⁹⁹ The egesta does not pass out in the form of normal fæces and something has to be done to remove the same before the waste is reabsorbed by the system or adheres to the delicate mucous membranes of the canal. Apart from reactionary and injurious medications, the only safe methods known to modern science are the gastric lavage for the stomach and enema for the colon. Both these methods, however, are defective for the reason that there is no voluntary coöperation or conscious response from the organs themselves. The elimination and cleansing is quite often partial and mostly palliative, and has thus no deeper therapeutic value than mere temporary relief.

To realize the hygienic significance of this aspect, let it be emphasized once again that there is a

98 Cf. *Intestinal Ills*, by A. R. Jamison, M.D., p. 274.

99 *Ibid*, p. 13.

RESPONSIBILITIES OF THE STOMACH

general agreement among various authorities on curative sciences—including those that advocate Nature Cure and Physiotherapy etc.—that disease always follows an abnormal condition of the alimentary canal. Although considered less important by a few medical authorities, the cleaning of the stomach, alike the colon, at regular intervals, is doubtless an extremely essential hygienic observance so vital to positive good health.

The practical yogins discovered this fundamental of preventive medicine thousands of years before any laboratory tests were possible. They, therefore, formulated a large and varied number of practices to effect a thorough irrigation of the alimentary canal¹⁰⁰—the inner surface of which, from the stomach to the colon, comprises 20,000,000 rootlets called glands, lacteals, follicles and villi, etc., that take up intestinal juices as the roots of a plant take sap from the soil. When these responsibilities of the stomach and other accessory organs bearing on nutrition and, therefore, on the general health of an individual are realized, it is easy for anyone

100 Similar processes variously called *vamana*, *virecana*, *basti*, etc., are also recommended by the ancient medical authorities in India. For one thing, while the yogins practise them daily for hygienic and preventive purposes, the ancient medical authorities have approved them only as therapeutic measures when found necessary. For another, while the yogins use only pure water for such irrigations, the ancient medical authorities have prescribed the use of medicated solutions instead. Cf. *Carakasamhitā*, *siddhis-tānam*, III, 19ff.; VI, 17ff.; *Suśrutasamhitā*, *sūtrasthānam*, XLIV, 5ff.; *nidānasthānam*, III, 18ff.

CARE OF THE DIGESTIVE ORGANS

to appreciate the true hygienic significance of the various yoga practices as an aid to thorough elimination of poisons from these organs—in the real sense of the word.

VAMANADHOUTI OR AUTOLAVAGE

The yoga method of cleansing the alimentary canal—more particularly the stomach, in this instance—is known as *vamanadhouti* or the stomach-wash. This method is again subdivided into many distinct lower and higher processes of a very complicated nature, each with a specific object in view. These practices for the purification of the alimentary canal (*antaradhouti*) are so interwoven that it is difficult to classify them. If taken in their traditional order as assigned by the yoga authors, they are sure to prove confusing to the lay students.¹⁰¹

For example, the process known as *vātasāra* or gastropneumolavage for the alimentary canal consists

101 The author has, therefore, taken the liberty to place them under such classifications as are more appropriate to their hygienic values. Needless to say that a large number of practices has to be omitted here since the scope of this work is limited and, further, their technique is complicated and difficult—even injurious, if practised without the direct and personal guidance of the yogin. This should not in any way imply that such practices do not possess high preventive and hygienic value. On the contrary, the practices omitted here and elsewhere throughout this work represent the most significant, technical albeit scientific, and valuable modes of cleaning hitherto investigated in the field of hygiene, preventive medicine and natural therapeutics.

VAMANADHOUTI OR AUTOLAVAGE

in filling the stomach—in a prescribed manner—with air and expelling the same through the posterior passage. Nature periodically cleanses this important passage but Yoga makes that cleansing thorough and voluntary. For, if the ordinary natural cleansing is imperfect, which is always the case, then the foetid matters putrefy in the stomach and the intestines and generate noxious and deleterious gases which lead to diseases. But *vātasāra*, by passing a current of air through the canal, causes the oxygenation of the foetid products and thus conduces to health, increases digestion and invigorates the activities of the digestive organs. Similarly, *vārisāra* or irrigation of the alimentary canal consists in taking large quantities of water, instead of air, by the mouth for the purpose of flushing the entire canal—having moved it in the stomach through *udḍiyāna* and pushed by *navli* and other accessory processes through the small and large intestines till it is finally ejected through the rectum.¹⁰²

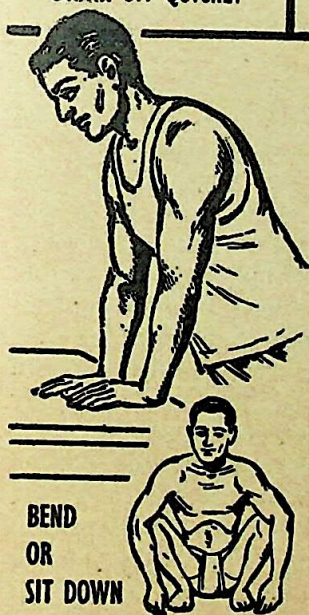
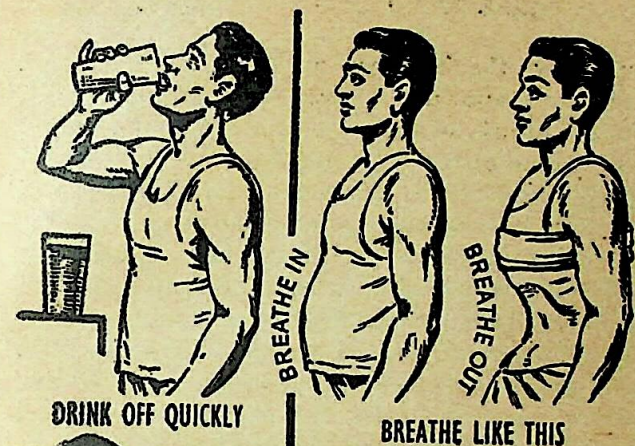
Of all such processes, however, the one most easy of practice which can be safely recommended to the

102 The most complicated of the canal-purification processes is the method of *bahiskṛtadhouti*, practised only by the adepts, consisting of a partial removal of the pelvic colon through the rectum. Although involving great risk, such practices most certainly indicate the extent of physiologic knowledge the yogins had regarding (i) the care of their body and (ii) the most effectual and suitable methods of eliminating poisons from many important organs, thus deriving the utmost hygienic benefit by easy and gradual means of self-treatment during health and disease. Cf. *Gheraṇḍasāṃhitā*, I, 10ff. ; *Haṭhayogasāṃhitā*, pp. 4, 5ff.

beginners is the mode of internal cleansing known as *vamanadhouti* or gastric autolavage—variously termed *kuñjala*, *gajakaraṇi* or *gajakarma*, etc., by the earlier authorities.

The washing of the stomach may be followed after the morning toilet. Take about two pints of lukewarm water—previously boiled and strained through a fine gauze—and add one heaping table-spoonful of salt and soda bicarb in equal proportions. Stir the contents thoroughly till evenly mixed, then begin drinking the same. Keep on drinking till the stomach can contain it no more. If possible, try to retain the water in the stomach for some time instead of throwing it out immediately. Exhale all the breath and draw in the stomach, as it were, really the abdomen, deep towards the spine as illustrated in FIG. 9. After an interval of twenty seconds, slowly take in the breath and again exhale deeply.¹⁰³ Repeat this *uddīyāna* process for five to ten times as may be found convenient. Assume either standing or squatting position as in FIG. 10. Should this be not comfortable, keep standing with the body above the waist bent forward. By now, you are sure to feel nauseated and, if this is followed up, with a slight pressure on the pit of the stomach with the palm of the right hand and with the drawing in of the abdomen towards the spine, the contents are likely to be vomited easily. If not,

¹⁰³ The diaphragmatic breathing is generally advised. Cf. *Yoga Breathing Methods*, By Shri Yogendra, 3rd Edn. (Press).



VAMANADHOUTI OR AUTOLAVAGE

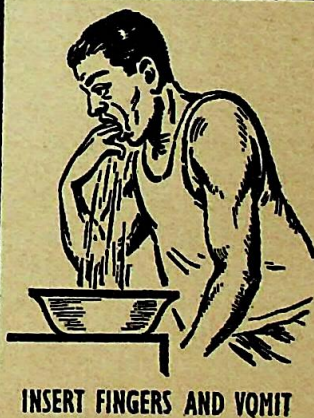


FIG. 10

CARE OF THE DIGESTIVE ORGANS

push down the forefingers in the throat—the yogins use what is known as *brahmadātana* (Hin.), literally, the toothbrush of the gods—and touch the end of your palate or the epiglottis, as in FIG. 3, and thus slowly bring out all the water. Of course, it will come out mixed with a large quantity of what may look like mucus—really the unused, unnecessary and filthy surplus fermented juices and secretions of the stomach. After each ejection, an interval of at least twenty seconds should be given, with a view to avoiding strain, exhaustion or confusion. The process may be thus repeated patiently till all the water taken in the stomach has been thrown out.

PHYSIOLOGIC EFFECTS OF AUTOLAVAGE

More benefit is derived from this simple process of yoga stomach-wash than from the use of a stomach-tube or the gastric lavage, when it is realized that, during this process, the vigorous gushes of water flush the upper dome and neck of the stomach as also the œsophagus thoroughly because of the repeated attacks of flooding this area which remains unaffected due to the interference of rubber contrivances used in modern mechanical methods of lavage. Wholesome hygienic and therapeutic effects of this vamanadhouti have been observed during laboratory and clinical tests. Among other things, as an aid to curing obesity, it is the best means for eliminating poisons from the body, and thus preventing further accumulation of foreign matters in the system. The large intake of water permits efficient urinary

CLINICAL REPORTS ON VAMANADHOUTI

elimination. It has been found to reflexly act on the liver, kidney and the intestines very favourably as a great change is immediately noticeable in the urine and the stools passed thereafter. Lauder-Brunton, Bouchard and other rational therapists recommend the treatment of vomiting for persons whose bile is concentrated or indicate presence of urobilin. They emphasize that much benefit is also derived through vomiting even in the case of renal complaints by permitting increased urinary elimination, especially of the pathogenic calculi. Besides these benefits, the strong movements of the diaphragm during forceful vomiting directly contribute to the much-needed massage of the internal organs.

CLINICAL REPORTS ON VAMANADHOUTI

As a therapeutic measure, vamanadhouti is to be applied uniformly to all patients excepting those who are considered unfit to undergo the process due to any specific organic or functional disorders. The results obtained in the treatment of dyspepsia, constipation, obesity, flatulence, gastric, hepatic, renal, enteric and similar disorders, besides reflex functional diseases of the vital organs like the heart and the lungs are, whilst not exceeding expectations, have been in the main quite satisfactory.¹⁰⁴

- 104 Dr. Thomas Oliver, advising the medical practitioners, about the free use of stomach-wash as a general treatment in disease remarks that "The excessive acidity of the contents of the stomach

CARE OF THE DIGESTIVE ORGANS

Rev. Dr. J. B. W. of New York City, age 68, case No. Am. 822, was found suffering from dyspepsia, chronic constipation, general and nervous debility and myocardial insufficiency. He was admitted as an inpatient at The Yoga Institute of America on the 12th September 1920 and reported as follows, after his discharge from the yoga clinic :

"Returning to my home in New York after a stay of three weeks in The Yoga Institute, of which you are the honoured head, I take special pleasure in telling you how greatly I benefitted by the treatment which I took.

"For fifteen years I had been a sufferer from constipation in its severest form ; but after the third day in the Institute I had a natural movement of the bowels with no recurrence of constipation since. I find also that the treatment has improved the action of my heart, and that the indigestion which has been greatly troubling me for several years is gradually passing away. By continuing at home the deep breathing exercises and the dietary suggestions which you gave me, I am confident that in spite of my handicap of sixty-eight years I shall recover my health and the sense of physical well-being which were beginning to slip away from me."

has first to be neutralized. As the quantity of formed and unformed ferment in this viscus is too great to be readily influenced by antiseptics it becomes necessary to wash out the stomach perhaps on more than one occasion." Cf. *Auto-intoxication of Intestinal Origin*, by Thomas Oliver, p. 327.

SOME USEFUL SUGGESTIONS

Mr. H. M. D. of Versova, Bombay, age 52, case No. VR. 1, had been suffering from piles, dyspepsia, rheumatism, obesity and prostatic hypertrophy. He was admitted on the 22nd January 1919 as the first inpatient soon after the foundation of The Yoga Institute. Even during the short period of his treatment, he observed as follows :

"From the very first week, I began to feel the steady advantage from the practice of Neti and Brahmadatana (*vamanadhouti*), the breathing exercises and the diet-course. From the daily notes that I have kept, I find that my weight has been reduced from 174 Lbs. to 134 Lbs. without my feeling any weakness thereby. In consequence, I have also been reduced in my girth measurement from 44" to 37" ; and I do not feel any longer that heavy, dull dyspeptic feeling. On the whole, I feel quite alert and cheerful."¹⁰⁵ /

SOME USEFUL SUGGESTIONS

Even though no details are available in the *yōga* works—the matter having been left to the discretion

105 For the first time in the history of Yoga, this pioneer Institute undertook to maintain and compile authentic clinical records and statistical data on the therapeutic values of the various yoga practices. To these earlier clinical reports of over four decades have been added thousands of new cases to corroborate the therapeutic evidence in favour of various yoga processes. Reports are also being received from readers who have derived utmost hygienic and therapeutic benefits from the yoga practices commended by us. Preliminary data regarding X-ray investigations and clinical and laboratory researches are available in *Yoga*, Vols, IV, V, and the Annual Reports of the Institute. Complete data will be published in the contemplated *Scientific Yoga Series*.

CARE OF THE DIGESTIVE ORGANS

of the teacher—the author is able to suggest from his own experience in conformity with the traditions that vamanadhouti could be practised daily for two weeks successively in the morning, and then on every alternate day for a further period of one month. It may, however, be pointed out that, after a few weeks of this practice, there will appear—depending upon the condition of the stomach—a slightly brownish element in the contents vomited from the stomach, the colouration being chiefly due to some of the tiny capillaries giving way after the morbid coatings from the walls of the stomach have been well-washed off. If no undue strain is exerted at this stage, the condition soon disappears. There need not be any anxiety on this account because the colouration of the contents only goes to prove that the walls of the stomach have been completely washed off, the morbid coatings have been removed, and the thin mucous lining has thus been cleansed and restored to its normal condition.

In fact, this stage should be treated as Nature's first warning inasmuch as no further attempts at vamanadhouti should be made for some period. Casual washings, of course, after an interval of a week or a fortnight may be undertaken, if found necessary. The scientific yogins practice it daily as a hygienic duty but that is no guidance for a layman who should resort to it only when he finds his stomach functionally indisposed. During sickness, it should be practised with great care.

OTHER YOGA ACCESSORIES

OTHER YOGA ACCESSORIES

Among other processes which contribute to the health of the stomach and stimulate its activities, are certain yoga posture-exercises and breathing methods. By synergic influence upon the respiratory, circulatory and sympathetic nervous systems and direct activation of the musculature; these processes increase the appetite, relieve the flatus, stimulate peristalsis and generally contribute to a healthy condition of the stomach. Postural training—including *paścimottānāsana*, *halāsana*, *cakrāsana*, etc.—may be followed everyday for a few minutes.¹⁰⁶ Diaphragmatic and *plāvinī* types of breathing are also very useful for internal massage and for oxygenation of the inner lining of the stomach¹⁰⁷. These may be repeated twice a day.

YOGA STOMACH HYGIENE

The following table may serve as a guide in adjusting the time to be allotted to these practices and their sequence. The yoga autolavage should be performed only on an empty stomach—¹⁰⁸ preferably, in the morning—and care should be taken to lie down and rest for at least ten minutes before resuming normal activities.

106 Cf. *Yoga Physical Education*, by Śhri Yogendra, 7th Edn.

107 Cf. *Yoga Breathing Methods*, 3rd Edn. (Press)

108 The words "*bhojanānte*" in the texts mean "just after the meal". It however implies the stage when the food has passed through the stomach which is usually between three to four hours.

CARE OF THE DIGESTIVE ORGANS

ORGAN	YOGA METHOD	FREQUENCY	TIME
The Stomach	<i>Vamanadhouti</i>	Morning only	10 mnts.
" "	<i>Yogāsanas</i>	Morning or Evening	15 "
" "	<i>Plāvinī</i>	Morning only	2 "
" "	<i>Uḍḍiyāna</i>	Morning & Evening	3 "

CHAPTER VII

CARE OF THE INTESTINES

One who practices *basti* or yoga enema never suffers from constipation and other abdominal disorders. It further increases appetite and is a sure remedy for flatulence.

Gheraṇḍasāṃhitā, I, 49.

MAN is, in a way, constantly living under the chance of being poisoned by none other but himself. For through the activities of his own laboratory of poisons—the intestines—he is always working towards his own destruction unless he is careful in avoiding auto-intoxication. Moreover, body tissues are continually undergoing changes of structure. The conglomeration of cells that form such body tissues generally vary in size and structure every moment—relatively—for the very simple reason that the cells are constantly dying, are cast off, and fresh material is supplied. The waste thus produced in the body, by the wear and tear of the tissues and through their by-products, represents dead and harmful refuse which has to be eliminated immediately.

Apart from the nose, the kidneys, the skin and other organs of elimination, the main work of elimination depends upon the activities of the

CARE OF THE INTESTINES

intestines—more decidedly the large intestines called the colon. If this latter organ is not functioning properly, the food-waste and its by-products, together with the poisonous substances cast off by other organs accumulate in the colon and pass through the most dangerous process of re-absorption. As a result, the poisons—both the biochemical and bacterial toxins—which ought to have been eliminated quickly are thrown back into the blood stream, carried to the tissues, nerves and brain ; and the health of an individual suffers.

AUTO-INTOXICATION

It is now generally admitted by the practitioners of the various systems of medicine that, in fact, we almost always do die of poisons. Poisons, therefore, are the main factors not only in causing old age but also death not directly due to injury. Practical Yoga recognized this physiological fact 5000 years ago, and has accordingly provided for a large variety of purificatory processes (*malasuddhi*) for thorough and prompt elimination of all poisons from the body.

Intestinal toxemia is the most universal of all maladies, and the main source of this auto-intoxication is the colon with its seething mass of putrefying food-residues. According to Vignal and Suckdorf, an adult man passes daily from 30,000,000,000 to 50,000,000,000 bacteria in his fæces. The harm these micro-organisms do is through the products which they form and which,

AUTO-INTOXICATION

when absorbed, are toxic—e.g., indole and skatole. We are also informed by such authorities as Oliver that "However numerous may be the causes of auto-intoxication, there is not the least doubt that it is from the gastro-intestinal tract that the poisons are principally absorbed."¹⁰⁹ Kellogg observes "that almost every chronic disease known is directly or indirectly due to the influence of bacterial poisons absorbed from the intestines."¹¹⁰

Thus, the most despised and neglected organ of the body—the colon—has only in recent years been made the subject of much scientific study and research, with the result that a lively controversy has been stirred up over this important subject. Anatomists declare that the colon is a useless appendage; bacteriologists call it the chamber of diseases; and surgeons recommend its removal for the safety of the rest of the body. There are, of course, pro-colon partisans as there are these anti-colon enthusiasts. One thing nevertheless is true that on the condition of the colon depends the health of an individual. Until very lately almost nothing has been known of the colon, and hence this organ has been more or less *terra incognita*. Recent investigators like Bouchard, Hemmeter, Müller, Albu and others have, however, realized the importance of this organ and abundantly proved by demonstrations that a clean colon is the

109 Cf. *Auto-intoxication of Intestinal Origin*, by Dr. Thomas Oliver, p. 325.

110 Cf. *Colon Hygiene*, by Dr. J. H. Kellogg, p. 184.

CARE OF THE INTESTINES

only sure preventive against diseases. "If, as demonstrated, the gastro-intestinal tract is the source of the largest number of poisons that cause auto-intoxication, then clearly this is the part of the body that calls for special attention and treatment."¹¹¹

METHODS OF ELIMINATION

Realizing well the necessity and importance of a clean colon, the question that remains to be settled is : Which is the best method of keeping the colon healthy? We have Tyrrell with his cascade, Lindlahr with the bran, Kellogg with the mineral oil and agar agar, besides a large number of other practitioners, both small and big, with varied suggestions for the regulation in diet, more vegetables and vitamins. The scientific yogins have given such matters their most careful consideration and, over and above the dietary code, the internal kneading and massaging of the intestines—through the processes of *uḍḍiyāna*, *śakticālana* and *navli* etc.—the various abdominal movements and postural exercises, have further recommended, what may be termed, the air-irrigation (*sthūla*, *śuśka* or *vāyu basti*) and the water-irrigation (*jalabasti*) of the colon. This yoga process of basti or natural enemata while seemingly alike the modern enema is fundamentally different both in technique and effect inasmuch as the air or water introduced not only in the colon but also in the small intestines is neither by the

111 Cf. *Auto-intoxication in Disease*, by Dr. Ch. Bouchard, p. 328.

METHODS OF ELIMINATION

applied power of gravitation, nor by pressure. The application of the power of gravitation is evident in the ordinary douche system whereas the application of pressure is evolved out of a similar contrivance in the form of self-administering appliance worked by one's own body-weight. In contrast, the yoga enema is an extremely natural process of suction aided by a peculiar type of abdominal autovacuum—a type which interestingly enough the *Holonthuria pentactes* practises from almost the very moment of its existence.¹¹²

It is needless at this stage to enter into the details of the real technique of basti, as there are many other preliminary exercises which have to be mastered before the same can be attempted or even recommended to a layman. What is possible is to treat only of such accessory and preparatory methods as lead to colon hygiene. Among these processes, the ones which may be easily practised without much guidance are certain postures and breathing methods.¹¹³ In the rationale of yoga postures, there are a large number of such movements as positively encourage bowel activities.¹¹⁴

112 The description of such a process in animal kingdom is recorded in *Lancet*, 1833-34, Vol. II, p. 960.

113 For specific postures and breathing methods, either dynamic or static, suited to individual needs, refer to *Yoga Physical Education* and *Yoga Breathing Methods*, both by Shri and Smt. Yogendra.

114 It is an acknowledged therapeutic fact that movements which bring into strong action the generally weak and relaxed abdominal muscles and thus raise the intra-abdominal pressure are of first importance to persons suffering from constipation and hepatic torpor etc. Compare *Colon Hygiene*, by J.H. Kellogg, M.D., pp. 272ff.

CARE OF THE INTESTINES

INTESTINAL FLATUS

While discussing colon hygiene, the part played by the intestinal gases, for the intestines also contain gases produced in the digestive canal, can hardly be overlooked. When fermentation of a putrid character predominates, there is produced rather an excessive disengagement of sulphureted hydrogen, ammonia and other poisonous gases which have to be expelled before much harm is done. For this, physiological Yoga prescribes certain anti-flatus postures which help to relieve such conditions.

ANTI-FLATUS POSTURES

The posture especially designed to expel flatus is known as *pavanamuktāsana* or the posture for the expulsion of internal gases.¹¹⁵ It is practised thus : Sit on the hinder part of your body, i.e., the buttocks, bending both the knees tightly together and then pulling them, rather pressing them, close to the abdomen and the chest. Then fold the arms around the knees and interlock them as shown in FIG. 11. A slightly inclined position backward, just enough to allow the feet to be raised from the ground, will be found extremely helpful. Do not interrupt this position with any bodily movements, but be static. For the yoga postures are not gymnastics and the highest virtue they possess lies in the secret of maintaining a particular pose for a definite period of time.

115 The internal gases are (i) the stomach gases, (ii) the intestinal gases and (iii) the flatus vaginalis.

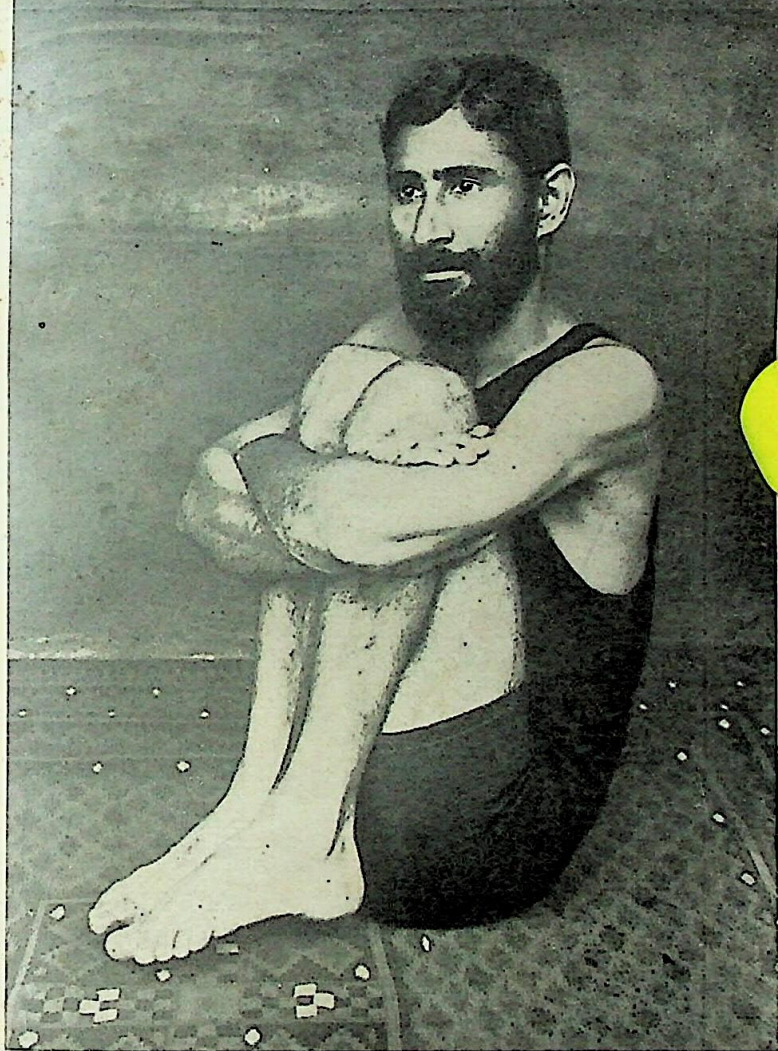
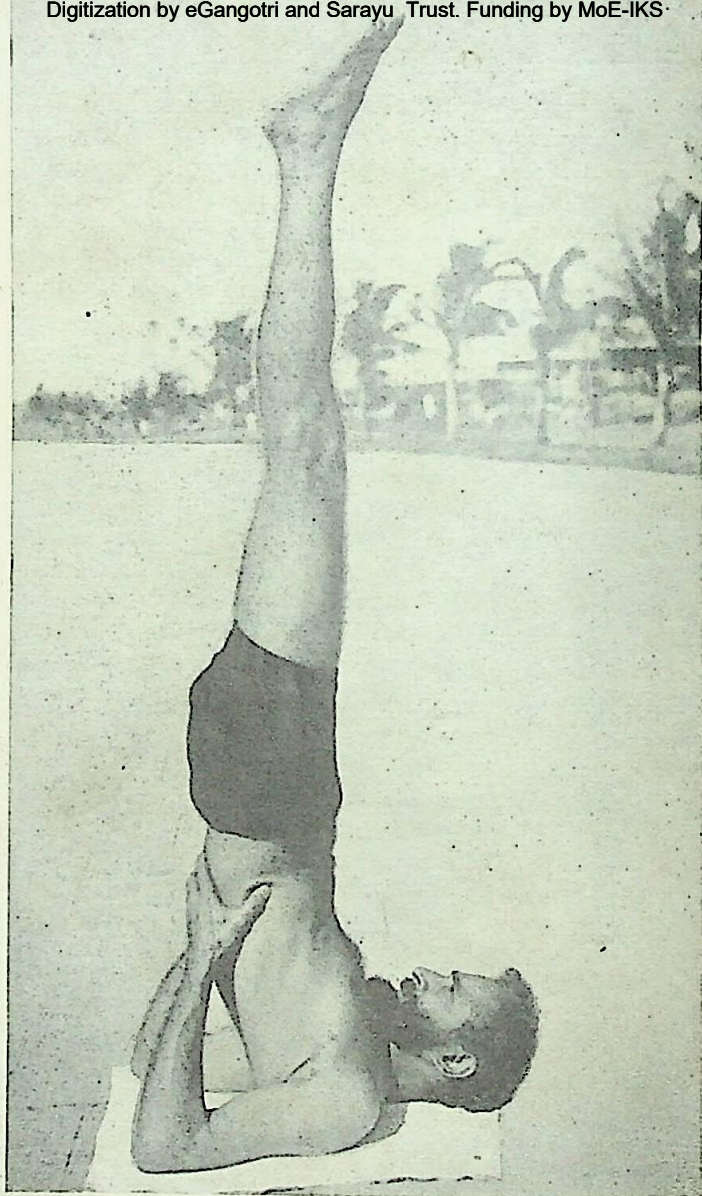


FIG. 11



ANTI-FLATUS POSTURES

Hold this pose for about three to five minutes. When practised in the lying-down position upon an inclined plane, this posture affords greater relief in a shorter period than the postural exercise suggested above.¹¹⁶ Even though a large number of abdominal exercises of the dynamic variety can be suggested for this purpose, insofar as the present work is concerned, the author's object is to represent only the static yoga āsanās in their traditional form without any dynamic modifications.

Those desiring easy access to this posture have an alternative. Lie on your back and, after drawing the knees close to the chest, press the thighs tightly upon the abdomen by increasing pressure upon the knees through the inter-locked arms. This knee-chest position is an excellent aid to internal pressure upon the contents of the abdominal viscera. When in this position, remember to take in a deep breath while relaxing, and *exhale* vigorously by drawing in the abdomen towards the spine and simultaneously tightening the elbow-lock over the knees. This, when practised alternately with either the left or the right leg, is called *vāmapāda* and *dakṣinapāda* pavanamuktāsana respectively. Among other anti-flatus postures—so classified because of their direct or reflex effects—are *ardhakūrmāsana*,

116 Mechano-yoga appliances like the folding table, the half-Fowler bed, the ordinary ironing board or plank (placed with one end resting upon a bed, couch or a window sill), etc., could also be easily improvised. For the yoga clinic, the Institute had designed a special table, for use by those patients who are unable—due to some defect—to practise head-low and other postures.

CARE OF THE INTESTINES

utkaṭāsana, *hastapādāsana*, *uṣṭrāsana* and *upadhānāsana* all of which are somewhat difficult and have, therefore, been omitted here.¹¹⁷

POSTURES FOR ABATING CONSTIPATION

Of all the postures—cultural, constitutional and therapeutic—the most important among those recommended for combating constipation are the replacing postural exercises which by opposite exaggeration bring about contouring equilibrium. For this, in contrast to the ordinary head-up leg-down position, the yogins prescribe the head-low hips-and-legs-high postures which have three specific advantages. First, such position greatly aids the replacement of the prolapsed abdominal organs like the stomach and the intestines—this condition of ptosis being almost universally present in a majority of cases of chronic constipation. Second, the head-low position drains the abdomen of venous blood, thus, reducing congestion of the viscera. Third, the constant pressure due to gravitation upon the abdominal contents—especially in those whose musculature is weak, relaxed or flabby—have to be neutralized by reversing the usual in order to gain the opposite effect, and it

¹¹⁷ Some of these postures have since appeared in *Yoga Physical Education* (for women), by Smt. Sitadevi Yogendra, 3rd Edn. What may be emphasized is that even in their dynamic form, these postures differ widely in details of technique and generally surpass the physiologic and therapeutic effects of exercises commended by the various systems of physical education. The relevant scientific findings appear in various publications of the Institute.

POSTURES FOR ABATING CONSTIPATION

is only after the viscera have been restored to position that any benefit is derived from other practices.

(a) *Sarvāṅgāsana* : *Sarvāṅgāsana* or the semi-reverse all-body pose is practised by lying supine at full length, arms at sides, with all the muscles relaxed. Then, slowly raise the legs together up enough to make a right angle with the body, all the while keeping the knees stiff and the body above the hip-joint on the ground undisturbed. At this stage, raise the arms, hold the waist, and push the body up as far as possible. Put all body-weight on the arms, rest on the elbows, support waist with palms, and stretch out the legs upwards. When this position is secured, make an attempt to shift the hands slowly towards the shoulder-blades, setting the chin in the jugular notch as shown in FIG. 12.

This posture can be tried very profitably even in parts, if the same cannot be secured in one attempt or even after a practice of many days. When perfected as per the illustration, it encourages a richer blood supply in the region of the brain, the thyroid and the thorax mainly through the intra-inversion of the blood vessels, besides many hygienic benefits it also has upon the abdominal viscera. The activities of these organs are thus stimulated resulting in the increase of internal secretions these organs generate and which, as the

CARE OF THE INTESTINES

students of physiology have lately demonstrated, contribute much towards good health and prevention against a large number of diseases.¹¹⁸

Many variants of sarvāṅgāsana have been suggested by different traditions of Haṭhayoga, e.g., the original pose with extended arms, hands folded and placed behind the back, or, at times, repeated with the toes touching the ground with concave spinal curve and similar modifications. In the preliminary stages, however, the above practice which is more or less uniform is abundantly serviceable. It may be pointed out that, when undergoing these head-low postures, great care should be taken to avoid any possible strain or jerks and the period of exercise should be fixed at the minimum, i.e., from 20 seconds in the beginning to five minutes at the most. Laboratory data indicate that the reactions of this posture are felt after the first half minute and these wholesome effects continue upto the fifth minute after which indications of strain and maladjustments in physiologic harmony become evident. Head-down postures should, on no account be tried after any form of rigorous gymnastics as the abnormal rush of blood to the head might do more harm than good.

(b) *Śīrāsana* : Śīrāsana or the head-down posture—more appropriately the topsyturvy pose—

118 That many diseases can be radically cured with the aid of this group of postures has been demonstrated at the clinic of the Institute ; and the scientific data are now available in their publications, including the journal *Yoga*.

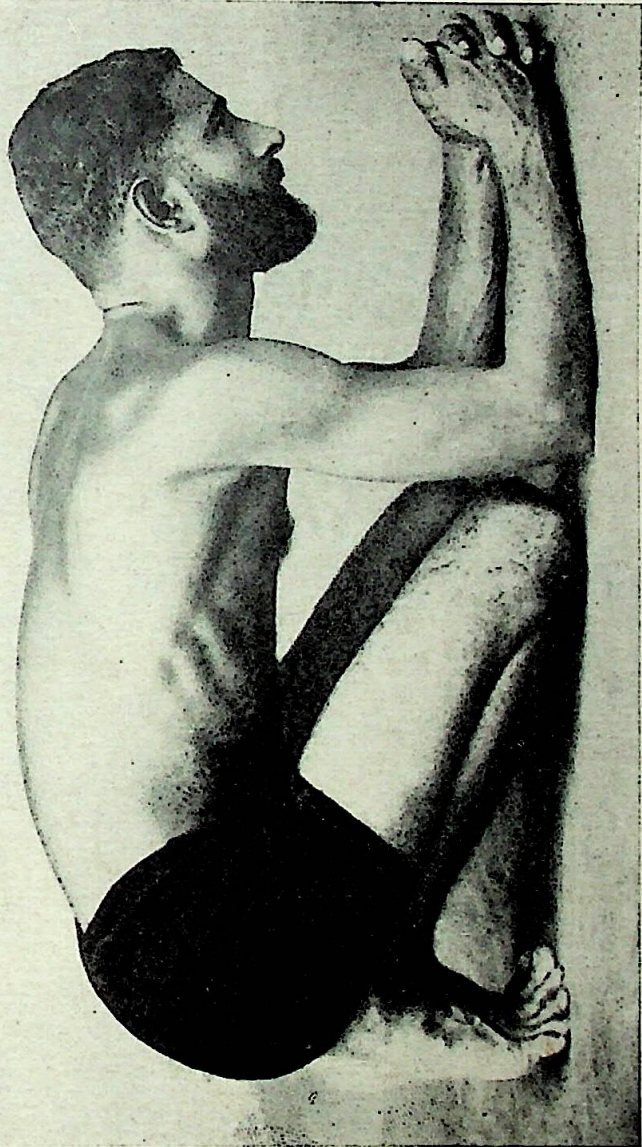


FIG. 13



POSTURES FOR ABATING CONSTIPATION

is another form of head-low exercise which though apparently difficult is extremely useful to persons suffering from chronic indigestion or constipation. This replacing exercise is practised as follows :

Sitting in a squatting position, interlock the fingers of both the hands tightly, and rest the finger-lock in front (on the ground) making, as it were, an angle of the forearms. Now place the head at the vertex of the fingerlock, by bending the body after falling on the knees, as if in prayer. See FIG. 13. Then, supporting the head from behind with the aid of the finger-lock—use the hinder part of the head rather than the forehead—try to slowly raise the lower part of the trunk and hold it perpendicular to the ground. Place all your body-weight on the elbow-angle and the hinder part of the head. This completes the first effort.

At this stage, this posture can be conveniently attempted in parts. For example, (i) with the above position well-secured, try to lift the toes from the ground by drawing the knees close to the chest. This raising of the toes from the ground, as shown in FIG. 14, which is indicated in the initial attempts may be followed for a period of five minutes each day continuing for over a month till it is perfected. Now, (ii) with the previous position well-grounded, fold the legs over the thighs—bending from the knee-joints—and straighten up the thighs till they are brought into line with the trunk, and maintain the pose. Sufficient caution should be exercised

CARE OF THE INTESTINES

during this stage to avoid by all means a *collapse backward* by rigid attention at the vertex and necessary pressure upon the elbows. Continue this form of semi-śīrāsana for five minutes each day for a period of many months before trying the last stage. (iii) With the mastery over semi-śīrāsana, it is now easy to stretch out the legs up in the air to their full length and to bring them into line with the rest of the body. This completes śīrāsana. For correct technique, refer to Figs. 13, 14, and 15.

In the beginning, aid may be secured for supporting the body either in the form of an individual holding the legs or a wall against which one can conveniently lean. This, however, should be discontinued at the earliest opportunity and an effort should be made to maintain the head-low balance without any support. Needless to emphasize that jerks and hasty movements should be scrupulously avoided during the practice of this āsana ; and, immediately after its performance, the body should be made to rest—as suggested under *Care of the Brain and Nervous System*—before resuming normal activities. Among other postures conducing, more or less, to the same hygienic effects are *vrkṣāsana*, *ūrdhva padmāsana* and the various forms of *mukta vrkṣāsana*.

The hygienic and therapeutic values of śīrāsana are manifold, as is evident from the laboratory data and clinical tests recorded at the Institute, besides a large number of testimonials collected and

POSTURES FOR ABATING CONSTIPATION

published by many yoga enthusiasts. As the result of pioneer activities and propaganda carried on by this Institute and also due to many individual claims from the interested students in India and outside, the use of this posture has, at present, nearly grown into a fad. Practised in moderation, however, it improves general circulation of blood—especially in the head—and relieves undue pressure on the distended or compressed abdominal viscera. Four decades ago, it was recommended by the author as a special aid to curing functional ailments of the nose, the throat, the ear and the eyes having their origin in impaired circulation, and also to relieving gastric complaints due to abdominal ptosis and stasis and, not unfrequently, pelvic congestion. We have also sufficient clinical evidence to warrant the use of such postures for improving the tone and activity of the digestive and sex organs.¹¹⁹

119. It is remarkable that nothing much has been gained through laborious experimentations in the West except that the achievements of the modern medical students only go to confirm the old investigations and conclusions of the yogins. A typical example of this truth is suggested by the proof presented by Dr. C. J. Muttart. According to Muttart, who held a clinic at the Philadelphia College of Osteopathy on the 27th Jan. 1922, standing on head is the latest cure for indigestion. It may be pointed out that the author *first* introduced śīrāsana or the head-down pose to the West under the auspices of The Yoga Institute (America) in 1920, and since then it has attracted the attention of both the lay students and the medical scientists.

Muttart observes that, if you have indigestion or constipation, stand on your head. Explaining at length, he remarked, that a great deal of indigestion is caused by the misplacement of the

CARE OF THE INTESTINES

STRETCHING OF THE ABDOMINAL MUSCLES

The anterior stretching of the abdominal muscles is also another form of exercise which helps the colon to maintain normal functions. Such postures by stimulating the peristaltic action of the intestines prevent constipation, hepatic torpor and tendency to obesity and rheumatism. They further strengthen the abdominal walls, muscles and ligaments, and are, therefore, very useful in the treatment of hernia, enteroptosis and similar disorders.

(c) *Dhanurvākṛāṣana* : The bow-curve pose or dhanurvākṛāṣana is an excellent postural exercise for the anterior stretching of the abdominal muscles. It has been described variously by the old authori-

stomach. Such misplacement can often be cured by relieving the strain of the supporting muscles. Such relief is obtained by lying with the feet higher than the head.

"Dr. Muttart had a patient at the clinic whose stomach was four inches below its normal position. He suffered intensely from gastronomic and intestinal troubles. 'This case before us', said Dr. Muttart, 'is, of course, extreme. The stomach of this young man is so low as to affect the proper functioning of his intestines. Before any attempt at curing him may be made, it will be necessary to try and raise the stomach nearer to its normal position. There are, however, many people suffering from indigestion which is caused by the stomach being too low. A very simple remedy for those who have this illness is to rest with the feet higher than the head, thus giving relief to the strained muscles that support the abdomen. In time, they will fully recover and the stomach will return to its normal position and bring infinite relief from gastritis and indigestion'." Cf. *The New York Times*, 28th Jan. 1922, p. 6.



FIG. 15

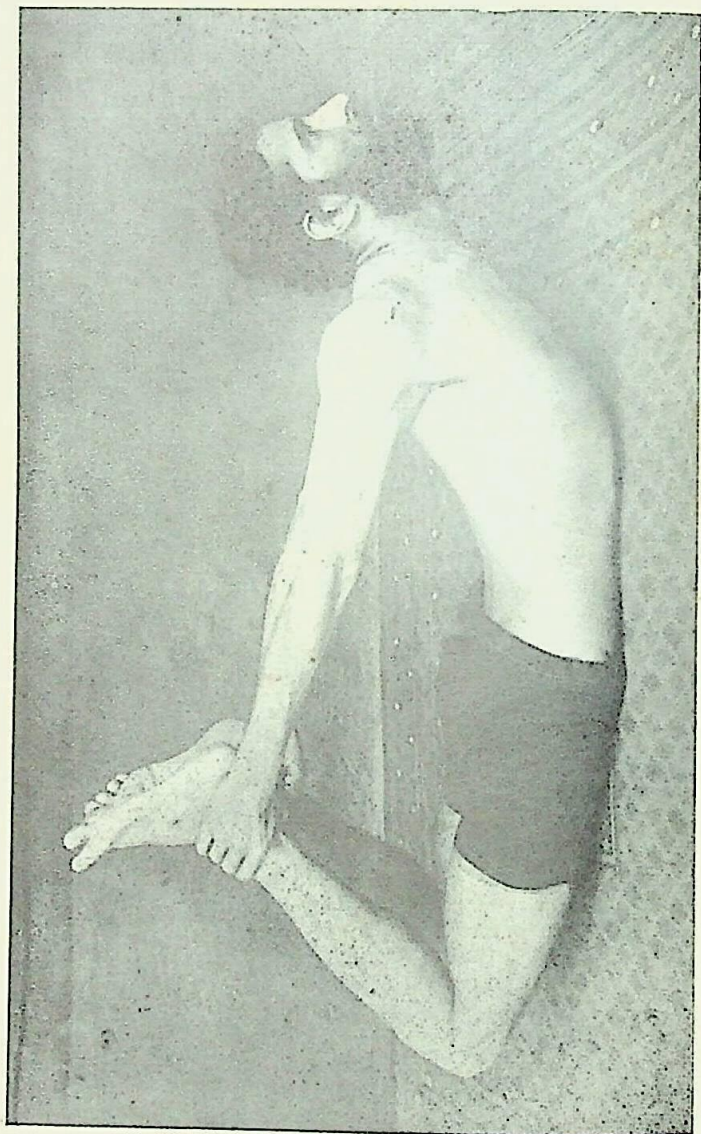


FIG. 16

STRETCHING OF THE ABDOMINAL MUSCLES

ties.¹²⁰ Most suited to colon hygiene, this posture is secured by lying prone upon the abdomen. Bend the legs from the knee-joints upward and fold them on the thighs from behind. Now with the hands at full length receive the ankles and grasp them well. Then raise the neck simultaneously with a steady lift and a pull of the ankles upward, assuming the position as shown in FIG. 16. If the utmost benefit from this exercise is to be derived, the knees should be kept together and not separated.

The special features of this posture are : (i) the extra-ordinary amount of intra-abdominal pressure due to the whole body being thrown upon the abdomen, and (ii) a steady pull anteriorly throughout the spinal column with alternate contraction and relaxation of all the important spinal muscles, especially the ones located at the sacral end. Among the other poses which largely contribute to thorough stretching of all the abdominal muscles are *bhujāṅgāsana*, *śalabhāsana*, *uṣṭikāsana*, *uṣṭrāsana*, *mayūrāsana* and *cakrāsana*.¹²¹

120 The posture listed under the title of *dhanurāsana* in *Haṭhayogapradīpikā* (I, 25) and *Yogasāra* (p. 36) differs fundamentally from the one referred to as *dhanurāsana* or *dhanuṣāsana* in *Gheraṇḍasamhitā* (II, 18) and *Haṭhayogasamhitā* (p. 21). In order to differentiate them, the author prefers the use of the terms *karna-dhanurāsana* for the former and *dhanurvakrāsana* for the latter.

121 For such dynamic yoga poses specially evolved and systematized by the author for the masses as the trunk-twisting, the full body swing, the piston movement, the windmill action, the rowing exercise, and a large number of other movements which strengthen the abdominal muscles, Cf. *Yoga Physical Education*, 7th Edn.

INTERNAL MESSAGE

Among the yoga breathing methods which stimulate the activities of the intestines, those which through internal massage help to keep the colon clean are of primary importance. Certain forms of (a) *śakticālana mudrā*,¹²² accelerating deep and successive diaphragmatic movements through breathing, and (b) *uḍḍiyāna bandha*, lifting the diaphragm deep towards the spine, are some of the most useful processes for internal massage and, thus, for the health of the intestines.

(a) *Śakticālana mudrā*: Lie on your back with practically nothing over you except a lungi. Now fix your eyes and attention upon your abdomen. After a complete exhalation or inhalation—whichever is convenient, although the former is preferable—start a movement of its muscles, i.e., push the contents down and draw them up quickly in a tossing or rolling movement. Every ten seconds, change your breath and repeat a few times.¹²³

(b) *Uḍḍiyāna bandha*: A complimentary method to the above, what may be roughly termed initial attempts at *uḍḍiyāna bandha*, consists of quick inhalations and exhalations simultaneously with the puffing and drawing in of the abdomen.¹²⁴ Lie supine with the arms at sides passively relaxed

122 Cf. *Gorakṣapaddhati*, I, 5, 6, 11ff.

123 Cf. *Breathing Methods*, 2nd Edn.

124 Cf. *Śivasamhitā*, IV, 73.

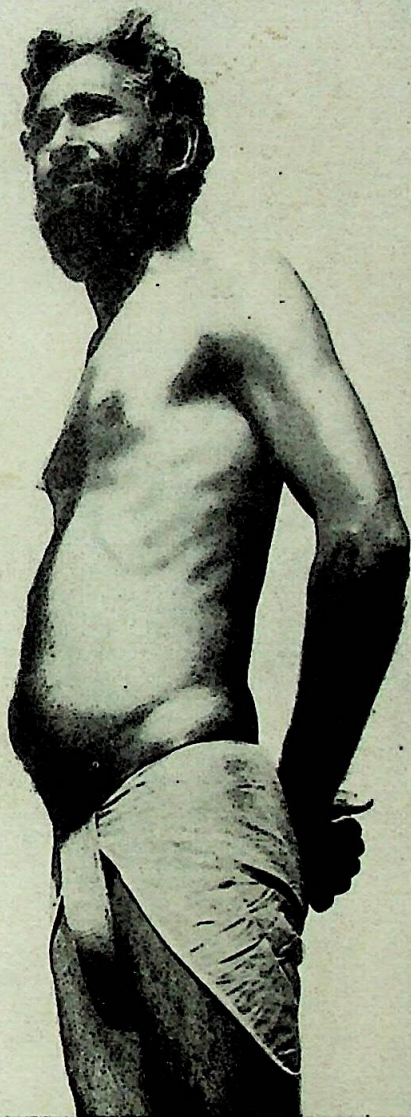


FIG. 17

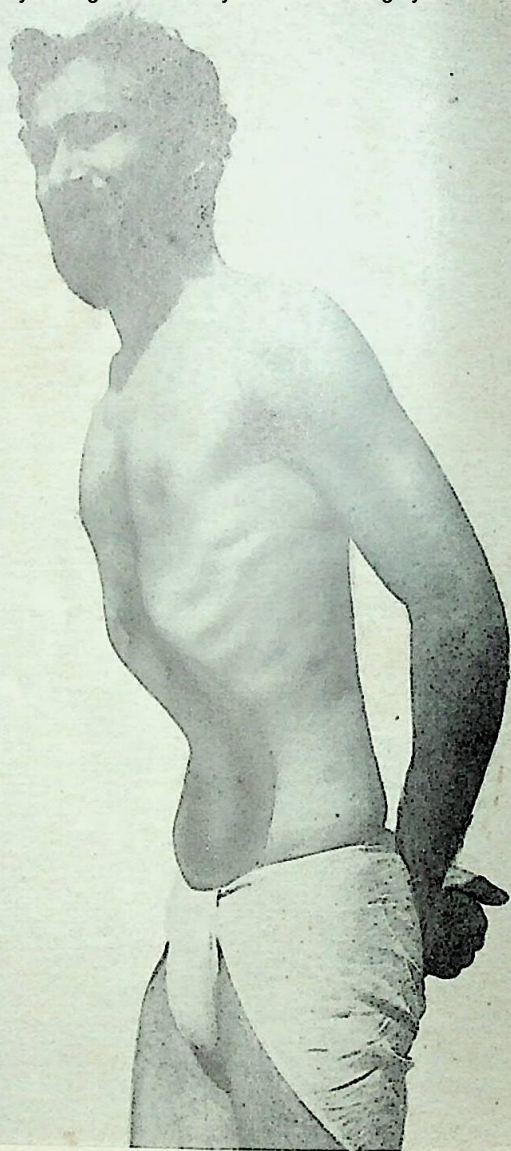


FIG. 18

CLINICAL TESTS

and the body absolutely free from any tension. Slowly draw up the contents of the abdomen deep towards the spine—of course, after complete exhalation—until the latter looks like a valley as though everything inside you was up in the chest cavity. Then push them down and bloat up the abdomen to its possible limit until you are ashamed of your protruding belly. Now quickly draw up, push down, wiggle, wobble, twist, turn and do every possible effort to exercise all your insides over and around—at least that is the feeling you should have.¹²⁵

Both the above yoga musculo-respiratory exercises can be most effectively practised even in a standing position. Figs. 17 and 18 illustrate the position of the abdomen during complete inhalation and exhalation in the last method suggested above. They are best performed on an empty stomach.

CLINICAL TESTS

The efficacy of these simple practices for colon hygiene and therapy have been fully demonstrated at the clinics of the Institute during the past four decades. In the treatment of catarrhal and tropical stomatitis, gastric and intestinal ulcers, gastritis, neurasthenia, arteriosclerosis, arthritis, migraine, asthma, alimentary toxemia and similar disorders, the yoga colon hygiene has proved to be of very great value.

125 Cf. *Breathing Methods*, 2nd Edn.

CARE OF THE INTESTINES

Mr. R. J. L. Jr. of Brenton Harbour, Mich., 26 years, case No. AM. 1126, suffered from intestinal ulcer and consequent malnutrition, emaciation and neurosis. He was advised by over twenty leading physicians of America to undergo surgical treatment. Even an appointment was already fixed for the operation next morning in one of the leading hospitals of Chicago, Some female patient previously treated at the Institute—being related to the patient—advised the father to remove his son to New York for yoga treatment. A long journey from Chicago to New York was unthinkable because the patient was in acute pains and often cried aloud. The only hope that was held before the family was that he could be cured without any surgical interference. When the case was admitted as an inpatient on the 24th January 1922, it was found that the hope of recovery was only a chance, as the condition of the patient had been considerably aggravated. Two sleepless nights, jerks and noises in the train had practically exhausted the balance of his vitality and he was required to fold his fists tightly against his abdomen to prevent himself from giving up a loud cry of pain. Suffice it to say that after a stay of six weeks—although it was suggested that two more weeks for building-up purpose would materially help him—at his request and that of his father, the patient was discharged from the Institute. He left the Institute in normal good health and cheer and later submitted his testimonial on March 10th, 1922 which reads :

CLINICAL TESTS

"I arrived in your Institute six weeks ago today, after having been told that I would have to have an operation to cure my intestinal ulcer. Now I find that after I have taken your treatment and living on a diet, my pains are almost all gone, and feel very sure, I will get well again without having an operation. If I had not heard of you through a friend, I would be required to go through the operation; so you know how glad I feel to be getting well again without having to be operated on."

Dr. C. N. S., a leading ophthalmic surgeon of Bombay, age 49, case No. Bom. 576, suffered from spastic colon, sprue, and subsequent flatulence, anemia, low vitality, low blood pressure, underweight and a totally run-down condition. He was admitted as an outpatient on the 9th July 1937. When discharged after six months of treatment, he showed remarkable change, considering his age. He picked up nearly 20 Lbs. of weight (106/126 Lbs.) with 10 per cent rise in his blood pressure (97S 72D/108S 82D) and 32 per cent in his breathing capacity (1800cc/2150cc). He regained his health and vigour completely and is able to enjoy rich foods. Appetite keen, digestion and elimination normal and the cure is so permanent that even after twenty years, he is still in the best of his health and cheer.¹²⁶

126 Hundreds of similar cases could be cited from the clinical records maintained at the Institute. Cf. *Yoga*, Vols. I, II, III, IV, V and the Annual Reports of the Institute.

CARE OF THE INTESTINES

In recent years, added experimental work, research and clinical data have confirmed our previous findings regarding the merits of yoga practices in the treatment of intestinal disorders—chronic constipation being one among the many from which civilized peoples suffer. In 1934, the University Charity Clinic of Berlin conducted scientific investigations on the lines suggested by The Yoga Institute, and the results have undoubtedly proved yoga colon hygiene and therapy as the best treatment for chronic functional constipation and similar disorders.¹²⁷

YOGA ENEMA

The use of enema to remove the waste-matters from the colon, when natural bowel movements are not fully satisfactory has become quite common among all classes of medical practitioners. As a further consequence, its bi-weekly use is very popular among the majority of hygienically-inclined people. Of course, objections have been raised by certain physicians to the regular use of enema for various reasons. But the necessity for the use of enema would cease to exist were the waste-matters eliminated thoroughly through natural bowel movements. Therefore, so long as this stage is not reached, an enema is a far better treatment than drugs and drastic purgatives.

¹²⁷ *Ibid*, III, pp. 82, 83ff. The article, Treatment of Chronic Functional Constipation by Yogatherapeutics appearing in *Yoga* has been translated from German *Deutsche Medizinische Wochenschrift*.

YOGA ENEMA

The best method, however, is the yoga basti or natural enemata which requires only a few months of practice—at the most, half an hour a day—to understand and master its technique. It can then be utilized as a permanent remedy against intestinal disorders. In the absence of such knowledge, many useful suggestions can be offered, from the yoga point of view, to make the ordinary enema clinically successful.

(a) *Favourable Positions for Enema*: From the contour of the large intestines, it is apparent that there are three positions in which the colon may receive a full supply of water: (i) the right side, (ii) the knee-chest, and (iii) the flat-on-the-back. The enema taken in a sitting posture as also in the lying-down position is more or less a failure—unless some special device is employed as in the case of mechanical high enema to force the water deep—because the gravity can assist the flow only as far as the transverse colon. Ordinarily, only one third of the colon is flushed by enema.¹²⁸ The right side position, however, allows the water to

128 It has been observed during laboratory tests that, under ordinary conditions, the water injected through an enema—a douche-can filled with two pints of liquid and placed about five feet above the subject—reaches the splenic flexure only, leaving two-thirds of the remaining part of the colon absolutely unaffected. This is termed low enema and is usually the type so generally administered by a majority of medical practitioners and the self-helping public. It is thus clear that under ordinary circumstances, it is *not possible* to induce high enema which is really *the only* important hygienic and therapeutic irrigation in contrast to the palliative enema.

flow in easily along the descending colon down to the transverse section and, during high enema, through the ascending gut to the cæcum. The knee-chest and the flat-on-the-back positions insure, with even greater ease, complete flushing of the large intestines.

(b) *Use of Uḍḍiyāna in Enema*: This ordinary enema flushing can be radically improved with the aid of certain yoga methods of breathing, e.g., forced *recaka* or exhalation followed by a complete suspension of breath (*śūnyaka*) and the drawing in of the abdomen towards the spine as in *uḍḍiyāna*. See FIG. 9. Both the respiratory standstill and *uḍḍiyāna* can be practised comfortably and simultaneously even while in the knee-chest or squatting position.

X-RAY INVESTIGATIONS ON BASTI

Repeated careful experiments conducted at the Institute have conclusively proved that spurious attempts by some pretentious novices like Kuvalayānanda to study the yoga basti through X-ray investigations—the radiograph appearing in the first edition belonging to one of such efforts—had been total failures lacking both in real yoga technique as also in scientific precision and essential details.

Scientific tests and X-ray experiments conducted on the processes of *uḍḍiyāna* and *basti* at the Institute, however, have amply demonstrated that



FIG. 19

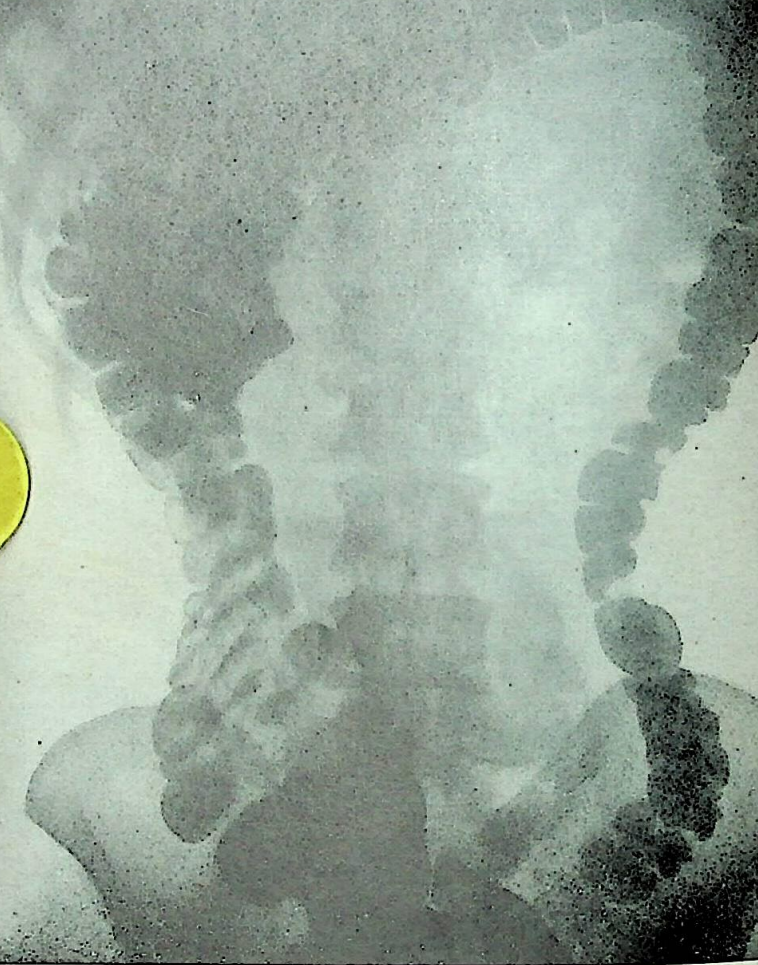


FIG. 20

X-RAY INVESTIGATIONS ON BASTI

even one pint of water can be made to cover not only the entire colon spreading the contents evenly and at once upto the cæcum as in FIG. 19 but also a portion of the *small intestines* as is evident from FIG 20. The reproduction of these two radiographs, FIGS. 19 and 20 respectively, show the possibility of flushing the entire colon and, what is more significant, the irrigation of even the smaller intestines with the aid of uḍḍiyāna in basti demonstrating the most valuable scientific data for therapeutic and other research purposes.

It is evident that the fluid from the cæcum and one half of the ascending colon has been drawn up and the ordinary position of the ascending colon considerably changed by a pull towards the spine. The hepatic flexure due to increased contents, slight distention, and gravitative weight forms a small loop with an extremely dark shadow which extends in natural peristaltic rhythm the full length of the transverse, the descending and the sigmoid colons. The transverse colon on account of its contents—the opaque injection recommended by Hænisch for X-ray tests and investigations—casts normal shadows. As a further result, its angle at the splenic flexure has largely disappeared and the transverse colon presents almost a circular arch, dome-shaped, lying up in the abdominal cavity. The descending colon is likewise effected and instead of its perpendicular fall, at nearly a right angle, the splenic flexure giving accommodation, it takes the form of a fine curve and, on its way, is drawn

towards the spinal column. This arrangement of the large intestines in uḍḍiyāna is very favourable to perfect flushing of these parts as is evident from the fact that the whole liquid has been evenly drawn and distributed in the entire canal, i.e., the descending, transverse and the ascending colons. These, of course are the parts of the intestines which need thorough cleansing and uḍḍiyāna is the only best means which can be supplemented to the modern enema to make the colon-flushing more effectual and hygienic than the repeated use of an ordinary enema.

The technique is inherent in the word uḍḍiyāna itself because the diaphragm is made to fly up (*uḍḍinam*) from its normal position and held very high in the thoracic cavity.¹²⁹ This raising of the diaphragm from its original position is the main secret which insures with greater ease, through nerviautokinesis and ideomotion, a thorough irrigation of the intestines than what is possible through the best mechanical means either known to or employed by a physician in securing a high enema.¹³⁰

129 As to the correct derivation of this word, it is also argued that the term *uḍḍiyāna* is reminiscent of the country of the origin of Haṭhatantras. Cf. *The Uḍḍiyānabandha of Haṭhayogī*, by P. K. Gode, M.A., pp. 57ff.

130 These yoga processes when scientifically studied under the fluorescent screen reveal very high therapeutic values. Such technical details will be discussed in the succeeding volumes of this series.

FALSE ANTIPERISTALTIC HYPOTHESIS

EARLY DEMONSTRATIONS

When a demonstration of this nature—the practice of uḍḍiyāna during the process of basti—was first offered by the author in New York¹³¹ (1920) before leading physicians including Dr. Meltzer of the Rockefeller Institute for Medical Research and Dr. Bell of the Hygiene Reference Board, it was observed by Dr. Hauffman, a specialist in diseases of the stomach and the intestines, that this process may lead to the cultivation of, what is termed, antiperistalsis habit. If true, this hypothesis has a highly dangerous import for this and other allied processes like *nauli* and *śakticālana* etc., which are so favourably spoken of in the yoga texts, and their daily practice wherefore is recommended.

FALSE ANTIPERISTALTIC HYPOTHESIS

It was then maintained by the author that the raising of the water into the intestines is most probably due to some sort of a vacuum as is generally evidenced in the ordinary water-pumps. Further, that the lack of evil effects largely associated with antiperistalsis was not only conspicuous by the absence of dysfunctions of whatsoever nature but, on the contrary, its refreshing, tonic and hygienic

¹³¹ Once again, at the request of Dr. S. N. Dasgupta of the Calcutta University—then in Chittagong—a similar performance was undertaken for close study at the Chittagong College (1923), before the professors and a few medical students. Cf. *Science of Yoga*, 2nd Edn., pp. 94ff.

effects were felt for nearly a week even after its performance.

Although scientific investigations and X-ray study of this process were overlooked at that stage, the truth has now been brought home strikingly by our recent successful experiments corroborated by scientific investigations, viz., X-ray and screen-examination etc. On the strength of these data, it may be safely stated that a student of Yoga need not be apprehensive of antiperistalsis while practising uḍḍiāna, nauli, basti, vajroli or similar process nearly or remotely allied. That the raising and spreading of the water in the colon is actually promoted by some sort of a vacuum created in the abdominal cavity,¹³² and that the antiperistaltic hypothesis is abundantly absurd to warrant any serious consideration have been further proved by our very recent findings.

It may be observed that the suction of the fluid even *into the small intestines* evident from the mild shadow covering the coils of terminal part of the ileum achieved through reverse but voluntary action of both the ileocæcal sphincter and the valve, as illustrated in the radiograph FIG. 20—accomplished only by the adepts in yoga practices—is a proof positive of the extraordinary control which a student of scientific Yoga gains over the

132 This partial vacuum is termed *Mādhavadāsa vacuum*, after the great yoga master, His Holiness Paramahansa Mādhavadāsaji, under whom the author received his secret traditional training in practical Yoga.

FALSE ANTIPERISTALTIC HYPOTHESIS

normal functions of his internal organs. This is just one of the many miracles which gradually accrue from yoga control of the whole biologic living involving even the lungs, the heart, and the nervous system.

That this is achieved by only the great masters need not be emphasized for such students of practical Yoga are capable of demonstrating similar internal controls without any harm to themselves. The issue to be decided is whether or not such controls over natural, albeit biologic, functions are detrimental to good health or otherwise. At least in the case of basti, if the colon is first cleansed of its impurities before irrigating the small intestines, there can be no harm possible even supposing there is temporary antiperistalsis in rare cases. One thing nevertheless is certain that the average practical student cannot possibly draw the water farther than the cæcum in which case its effects are similar to those of the mechanical high enema—in basti, voluntarily administered. The hygienic effects in the case of the latter are, therefore, not only similar but even better. From the laboratory data and the clinical evidence at his disposal, the author is convinced that instead of doing any harm, the yoga method of flushing the intestines, on the contrary, aids the cleansing not merely of the large colon but also of the small intestines—something which could not be accomplished by any modern device known to science. That the Haṭhayogins knew how to control the autonomic nervous system and to apply

CARE OF THE INTESTINES

such knowledge for hygienic and therapeutic purposes is amply borne out by the practices they have recommended some thousands of years ago.

Besides uḍḍiyāna as an aid to the ordinary enema, the movements of the intestines as suggested previously, while retaining the water in the colon for five to ten minutes, will greatly add to loosening the clogged up residues and alvine calculi hiding in the intestinal folds. It also relieves strain on the kidneys and the blood vessels.

CONTRAINDICATIONS

Those with weak heart, pulmonary complaints and suffering from fistula, appendicitis, bacterial or worm infections of the intestines, high blood pressure and similar affections should practise the śākticālana and uḍḍiyāna process very mildly and in the presence of a qualified teacher of scientific Yoga. Such practice, at no stage, should exceed the limit of one minute twice a day since their internal reactions are very strong and require considerable period for physiologic readjustments. Moreover, uḍḍiyāna should be performed only on an empty stomach, and it is imperative that this condition is faithfully observed.

YOGA COLON HYGIENE

The following table may be found useful in adjusting the time and frequency with regard to the yoga practices for colon hygiene. The same can be varied to suit individual requirements.

YOGA COLON HYGIENE

ORGAN	YOGA METHOD	FREQUENCY	TIME
The Intestines	<i>Pavanamuktāsana</i>	Evening only	2 mnts.
" "	<i>Sarvāṅgāsana</i>	Morning & Evening	" "
" "	<i>Śīrāsana</i> (any stage)	" "	" "
" "	<i>Dhanurvakrāsana</i>	" "	" "
" "	<i>Śakticālana mudrā</i>	" "	1 mnt.
" "	<i>Uḍḍīyāna bandha</i>	" "	2 mnts.
" "	Enema with <i>uḍḍīyāna</i>	Once a fortnight	20 "

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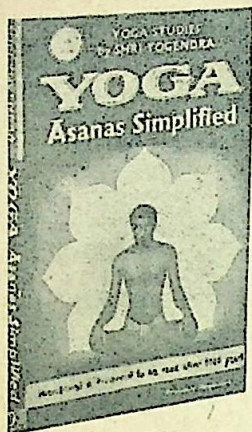
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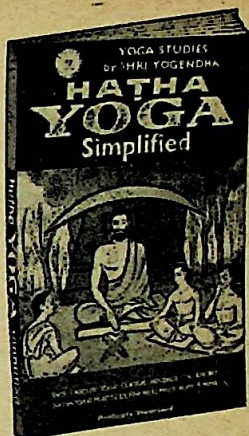
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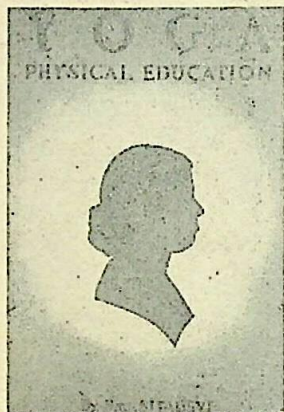
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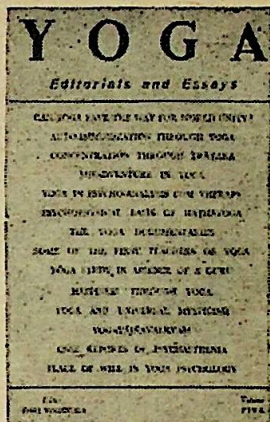
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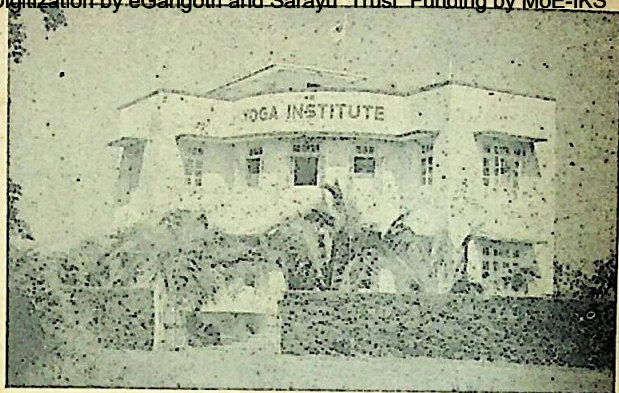
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